Annual Report
Sanitary Commissioner of the
North Western Provinces
1869, 1872 to 1876

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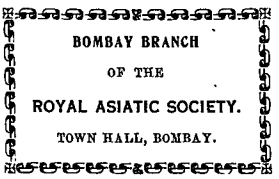

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SECOND ANNUAL REPORT

OF THE

SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

134199

1869.

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SECOND ANNUAL

REPORT OF THE SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

PART I.

Deaths amongst the Native population in the North-Western Provinces, for each of the years from 1865 to 1869 :—

Year.	Population.	Deaths.			Deaths in 1,000 living.
		Males.	Females.	Total.	
1865, ...	29,405,322	335,359	239,774	575,133	19·5
1866, ...	...	193,144	136,932	330,076	10·2
1867, ...	...	212,461	155,449	367,910	12·5
1868, ...	29,588,653	186,312	133,574	319,886	10·8
1869, ...	...	303,921	225,832	529,753	17·9

From the preceding table it may be noticed that in the past year the deaths registered have been greatly more numerous than in the three preceding years. Indeed, the year 1869 may be noted as a year in which the three principal causes of death amongst the people of this province, namely, fever, small-pox, and cholera, were very prevalent. It was essentially an unhealthy year, a year in which life in the plains of India was trying to all. Its remarkable features as regards climate were, a lengthened hot season,—a dry, ardent season, commencing early and extending far into what is usually counted as the rainy season; a delayed rainy season, characterized by a rain-fall of more than average quantity, and ending in quite a flood of rain, as late as the first ten days of October.

2. As proof of the unusual heat experienced in this year, I would call attention to the following concise table of temperatures for the past three years, compiled from Doctor Murray Thompson's weather reports :—

Months.	Temperatures.														
	Maximum in sun's rays.			Minimum on grass.			Maximum in shade.			Minimum in shade.			Mean in shade.		
	1867.	1868.	1869.	1867.	1868.	1869.	1867.	1868.	1869.	1867.	1868.	1869.	1867.	1868.	1869.
May, ...	130°	138°	164°	66°	64°	74°	105°	103°	109°	74°	75°	82°	91°	91°	94°
June, ...	128°	122°	154°	76°	77°	78°	102°	101°	106°	79°	81°	83°	90°	91°	95°

3. This year of unusual heat and moisture happened, moreover, to be a year of famine; it cannot, therefore, be matter of surprise that disease should have been unusually prevalent, as will appear in the following statement :—

Statement of Mortality in the N.-W. Provinces, for the year 1869, *in comparison with that for* 1868.

1.	2.	3.	4.		5.		6.		7.		8.		9.		10.		11.	
Number.	Districts.	Population.	Deaths from fever.		Deaths from Small pox.		Deaths from Dysentery and Diarrhœa.		Deaths from Cholera.		Deaths from Leprosy.		Deaths from other causes.		Total.		Percentage of deaths to population.	
			1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.
1	Dehra Doon, ...	1,02,831	570	546	30	43	251	191	1	6	17	13	481	432	1,350	1,231	1·31	1·17
2	Saharunpore, ...	8,66,483	11,189	7,210	1,106	3,174	894	792	182	138	27	34	4,901	4,852	18,299	16,200	2·11	1·86
3	Moozuffurnugger, ...	6,82,189	10,541	4,131	1,074	2,345	842	454	166	228	65	22	4,402	3,770	17,090	10,950	2·50	1·60
4	Meerut, ...	11,99,593	9,626	8,425	4,984	894	908	2,064	565	318	59	331	3,079	2,322	19,221	14,354	1·60	1·19
5	Boolundshahur, ...	8,00,481	6,650	5,769	6,340	1,339	1,317	1,402	155	116	34	42	1,579	2,404	16,075	11,072	2·00	1·38
6	Allygurh, ...	9,25,538	6,668	5,662	6,449	1,938	1,601	967	429	106	34	25	1,785	1,743	16,966	10,441	1·83	1·12
7	Kumaon, ...	3,85,790	2,688	1,466	7	3	732	355	54	...	72	51	2,435	2,428	5,988	4,303	1·55	1·11
8	Gurhwal, ...	2,48,742	1,992	1,659	2	8	1,237	...	...	20	34	...	1,248	2,915	4,513	4,602	1·81	1·85
9	Bijnour, ...	6,90,975	4,390	4,160	37	226	381	512	68	38	35	20	1,554	1,841	6,465	6,797	0·93	0·97
10	Moradabad, ...	10,95,306	5,916	6,693	740	803	1,319	1,955	195	138	33	49	3,666	5,046	11,869	14,684	1·08	1·34
11	Budaon, ...	8,89,810	5,540	4,262	500	387	69	660	1,141	104	23	36	2,224	1,335	9,497	6,784	1·06	0·75
12	Bareilly, ...	14,64,199	17,416	6,720	620	1,256	2,285	1,079	927	531	101	18	7,126	9,220	28,475	18,824	1·94	1·28
13	Shahjehanpore, ...	9,18,850	10,467	8,126	663	231	1,235	963	257	43	61	43	3,012	3,167	15,695	12,573	1·70	1·36
14	Terai, ...	91,802	2,426	1,350	6	1	24	40	...	3	...	...	554	475	3,010	1,869	3·27	2·03
15	Muttra, ...	8,00,321	7,476	5,347	6,048	993	1,707	682	1,060	128	19	20	1,767	1,519	18,077	8,689	2·25	1·08
16	Agra, ...	10,28,544	12,374	9,769	7,802	955	1,815	1,290	2,015	79	23	25	4,598	4,323	28,527	16,441	2·77	1·59
17	Furruckabad, ...	9,15,943	5,163	4,543	3,851	725	1,109	845	325	102	9	32	2,528	991	12,985	7,238	1·41	0·79
18	Mynpoory, ...	7,00,220	5,763	5,786	4,210	901	296	306	349	80	18	16	1,675	1,557	12,311	8,646	1·75	1·23
19	Etawah, ...	6,26,444	4,701	3,099	3,561	233	217	102	449	12	43	10	1,588	909	10,559	4,365	1·68	0·69
20	Etah, ...	6,14,351	4,254	5,178	3,514	1,068	469	466	242	61	28	11	1,709	1,822	10,216	8,606	1·66	1·38
21	Jaloun, ...	4,05,272	2,017	1,176	1,550	218	272	233	2,592	11	...	42	2,921	803	9,352	2,483	2·30	0·61
22	Jhansee, ...	3,57,774	7,975	1,500	3,310	104	1,576	161	1,794	...	24	12	5,652	1,403	20,331	3,180	5·68	0·88
23	Lullutpore, ...	2,48,146	3,686	1,608	972	53	2,827	311	2,702	...	8	10	1,653	1,220	11,848	3,202	4·77	1·29
24	Cawnpore, ...	11,88,862	11,992	5,619	6,327	352	1,552	853	2,801	67	9	9	4,052	4,385	26,733	11,285	2·24	0·94
25	Futtehpore, ...	6,80,786	6,368	4,125	6,134	501	1,106	459	952	88	14	12	2,551	1,727	17,125	6,912	2·51	1·01
26	Banda, ...	7,24,372	12,960	6,038	7,046	1,179	1,752	682	1,393	...	15	30	3,576	1,535	26,742	9,464	3·69	1·30
27	Allahabad, ...	13,93,183	5,182	5,449	1,427	819	481	132	2,914	638	164	16	3,905	1,771	14,073	8,825	1·01	0·63
28	Humeerpore, ...	5,20,941	7,603	3,022	4,098	1,337	935	278	2,059	5	19	24	4,011	1,360	18,727	6,026	3·58	1·15
29	Jounpor, ...	10,15,427	6,865	6,024	1,770	1,101	216	634	2,863	863	10	23	2,778	3,231	14,502	11,876	1·42	1·16
30	Goruckpore, ...	19,83,816	10,959	7,581	389	269	646	391	8,593	3,995	9	8	1,269	956	21,845	13,200	1·10	0·66
31	Bustee, ...	14,55,697	3,263	3,106	368	1,152	78	38	4,349	501	...	...	495	838	8,553	5,635	0·58	0·38
32	Azimgurh, ...	13,85,872	8,519	3,885	1,154	2,043	107	194	8,816	1,406	...	6	1,057	1,971	19,653	9,505	1·41	0·68
33	Mirzapore, ...	10,54,413	6,382	9,062	2,348	845	448	395	4,795	2,094	6	10	1,927	1,592	15,906	13,998	1·50	1·32
34	Benares, ...	7,93,277	8,261	8,002	1,191	771	481	299	3,527	1,174	11	16	1,837	1,471	15,308	11,733	1·92	1·47
35	Ghazeepore, ...	13,32,403	9,094	7,107	1,162	1,716	267	495	10,812	3,305	22	43	510	1,227	21,867	13,893	1·64	1·04
	TOTAL, ...	2,95,88,653	2,46,838	1,73,205	90,770	29,983	31,452	20,680	69,542	16,898	1,046	1,059	90,105	78,561	5,29,753	3,19,886	1·79	1·08

4. In the above statement, deaths from every cause show a more numerous total for the past year, excepting those from leprosy, where the figures nearly agree; and I believe the totals, though by no means correct as to fact, do truthfully show the differing ratio of mortality of the two years, and therefore I think I am justified in writing at some length concerning the causes,—fever, small-pox, and cholera.

OF DEATHS FROM FEVER.

5. Disease and death from fever have been most prevalent, and their increase greatest in the following districts:—

	Deaths from Fever.	
	1868.	1869.
Bareilly, ...	6,720	17,416
Saharunpore, ...	7,210	11,189
Moozuffurnuggur, ...	4,131	10,541
Banda, ...	6,038	12,960
Jhansie, ...	1,500	7,975

The preceding districts have been selected for especial reference, because the figures appertaining to them show at a glance how very serious the increase of deaths from fever has been. Certainly the increase has been very great in several of the remaining districts, but I think it best to restrict my remarks on this subject to a few selected districts, premising that the causes which have produced the increase are probably the same everywhere.

6. The following table will greatly help to a just conclusion in respect to one probable cause of the increase :—

1869. Month.	Deaths from Fever in Districts of				
	Bareilly.	Saharunpore.	Moozuffurnuggur.	Jhansie.	Banda.
January, ...	751	503	449	236	524
February, ...	572	324	319	254	447
March, ...	836	318	299	199	376
April, ...	945	479	545	196	430
May, ...	1,258	660	868	173	478
June, ...	876	482	666	377	757
July, ...	684	279	696	393	557
August, ...	1,235	556	821	838	899
September, ...	2,649	1,059	957	1,164	1,359
October, ...	2,484	2,432	1,993	1,692	2,512
November, ...	3,468	2,477	1,732	1,828	2,937
December, ...	1,658	1,620	1,196	625	1,684
Total, ...	17,416	11,189	10,541	7,975	12,960

7. The table shows plainly that the unusual mortality from this cause occurred in the months which immediately succeeded the heavy rain-fall of September and the first ten days of October,—a rain-fall which covered the country with water, filling every water-hole to overflowing; and I cannot but think the cause of the unusual mortality from fever was due, in some part, to the excessive moisture resulting from this rain-fall. In the case of Saharunpore and Moozuffurnuggur, this moisture was increased from another source in many places, namely, the extreme and continuous moisture of the soil resulting from irrigation before the rains commenced, and also during the rains; and I think it is due to it that, while in the Bareilly district, with a rain-fall of 39 inches for the season, there has been a mortality from fever of 11 in a thousand of the inhabitants, in Moozuffurnuggur, with a fall of only 18 inches, there has been a mortality of 15 per thousand, and in Saharunpore, with a fall also of 18 inches, a mortality of 13 per thousand, from the same cause.

8. The apparent effects of irrigation on the health of the people will come to be considered in a separate part of this report, as that subject has engrossed my attention

for the past two months ; and by inspections of the towns and villages of the irrigated country, I have been able to acquire a knowledge of the subject worthy, I think, of separate record.

9. Another cause of the increased mortality from fever was doubtless, I think, that the poor people of the country were badly nourished; eating, as a rule, during a great part of the year, only the commoner sorts of grain, and those often in bad condition. During my journeys of the past year, I heard often of this as a cause of fever, disease and death ; and, although it may be accepted as true that very few people died of starvation, it cannot be doubtful that many died from eating too little to support vigorous life, so that disease appearing found many ready victims. Even the people who cannot be counted amongst the very poor did not escape this cause of disease ; for, although they were able to eat bread of wheat pretty often, in their endeavours to support life on the smallest possible quantity of bread, the safe limit in this respect was, no doubt, very frequently passed. In short, the past has been a year of general suffering, doubtless patiently borne after the manner of the people concerned, but not the less bitter to them, or less certainly attended by sickness and death. The real extent of this sickness and death we shall never know now, because of the imperfection of our existing mortuary returns—a deplorable fact, I think,—but it may be guessed as having been very considerable, by a study of the figures I am able to give of deaths from fever.

OF DEATHS FROM SMALL-POX.

10. During the first five months of the past year, small-pox was epidemic in several of the districts, and prevalent in almost all. The exceptions to this general rule are the districts of Kumaon, Gurhwal, and the Terai, the inhabitants of which, as regards immunity from small-pox, are undoubtedly reaping the advantages of the general practise of vaccination so successfully introduced by the Vaccination Department.

11. Doctor Pearson, the Superintendent-General of that Department, has written at some length on this subject in his last report, and claims, as a triumph to the Vaccine Department, the fact that small-pox in Kumaon and Gurhwal, where it used to claim its victims by thousands, can now find no *nidus*, because the people are all protected by vaccination. Small-pox, though often introduced by travellers, now dies out at once.

The correctness of this opinion is fully borne out by the monthly mortuary statements which come into my hands. These statements are prepared by officers in no way connected with the Vaccine Department, and the total of only nine deaths from small-pox, recorded for the past year in both districts, with a population of 6,34,532, may be accepted as reliable proof of the perfect vaccination established there.

12. The following concise table of selected districts will suffice to show the time of the year in which the disease prevailed, and a like table of all the districts would give the same general result :—

1869.	Deaths from Small-pox in			
Month.	Allygurh.	Agra.	Cawnpore.	Banda.
January, ...	840	1,342	331	787
February, ...	981	1,212	471	1,265
March, ...	1,337	1,456	1,088	2,056
April, ...	1,285	1,834	1,615	4,798
May, ...	1,218	1,183	1,718	827
June, ...	478	442	723	239
July, ...	175	132	243	57
August, ...	59	117	83	8
September, ...	21	52	25	5
October, ...	18	12	18	3
November, ...	14	12	6	0
December, ...	23	8	6	1
Total, ...	6,449	7,802	6,327	7,046

13. From this it appears the disease commenced, as an epidemic, in the months of cold weather, and raged with greatest intensity in the hot weather of March, April,

May and June, ceasing gradually as the wet season advanced. This, I believe, is the usual course of small-pox epidemics in the province. During my inspection, in the latter end of March, of villages where cholera prevailed, I saw several cases of small-pox, some confluent, the result of contagion, others in children, distinct, it was said the result of inoculation. The inhabitants seemed to care little about it. I was told it was the small-pox time of year, the disease being unusually prevalent in obedience to a law of results which shows every fifth year to be so distinguished. I noticed, especially, two children who had been inoculated with the disease, lying covered with a sheet in an open place on the shady side of a house. They had the disease in a mild form, and were apparently likely to do well. Altogether, what I saw of the disease at this time strengthened my belief that inoculation is justifiable so long as vaccination cannot be enforced. But, I should add, that not very far from the two children described, I saw a middle-aged man lying uncovered in a dying state with confluent small-pox, tormented with flies innumerable, and I think that man's miserable end may have been due to the introduction into the village of small-pox contagion by the practice of inoculation.

14. During the past two years, the question of the propriety of Government interference in the matter of inoculation to the extent of providing for its better practice has attracted considerable attention, owing to the admirable report on this subject written by Doctor Charles, the Superintendent-General of Vaccination, Lower Provinces. I have attentively considered the subject of that report in all its bearings, as occurring to me or suggested by the report, and have come to the conclusion that the practice of inoculation is a matter not suited for recognition or control by any Government, now that vaccination has been discovered.

15. During my inspections of the past season, I have seen much to help me to believe that vaccination is becoming more acceptable to the people. Especially I observed the reality of the vaccine visicle, the number of children operated on, and the immunity from small-pox of children vaccinated in the past few years,—an immunity confessed to by the parents interested.

In many towns and villages I have had opportunities of talking on this subject, and I believe the mind of the people, hard to move and very slow, is revolving this matter, and that the Vaccination Department, as it now exists, will have cause for further cries of triumph over its success in the plains of India, as years pass on.

16. I am inclined to think the reason why deaths from small-pox always commence to increase in the cold weather months, is, that inoculation is practised then, and so the contagion of the disease is spread in every centre of population, to end by becoming epidemic in some years, in the hot months.

17. The Superintendent-General of Vaccination, in his report already alluded to, mentions that, as a matter of sanitation, nothing can equal vaccination in importance. Certainly a noteworthy remark, although I think there are other matters of sanitation quite as important as vaccination; yet vaccination has such a certain result in preserving life, its importance cannot be too much insisted on. It cannot, of course, have escaped my attention that the Government is fully alive to the importance of vaccination, and desires to increase the establishment especially employed in this work, with a view to providing more than one vaccinator to 107,658 of the population, the existing ratio.

18. This being so, it is not necessary I should urge the importance of vaccination further; but I should like to point out that this is not a question which can be best gauged by reference to the ratio of population to each vaccinator, because, to state the fact broadly, two-thirds of the population are already protected sufficiently, for all practical purposes, by a previous attack of small-pox. The crucial test in this matter would be the ratio of vaccinators to total annual births, and I think the endeavours of Government in this direction would be guided best by that consideration, which throws a more hopeful light on the matter.

19. To my mind, the problem to be solved is, to bring about, within a few years, such change of circumstances as may permit of the report by the Vaccination Department that every person living, more than a few months old, is protected from small-pox;

either by a previous attack of it or by vaccination. Once establish that as a fact, and I think, seeing the change which will certainly appear in our mortuary statements, the Government of the day will find it advisable to ensure the lasting effect of the good work, by legislation. To permit of our indulging a hope of establishing such change, it is quite necessary there should be in existence one vaccinator to every 1,500 children born to live, as, in the opinion of the Superintendent-General, one vaccinator can vaccinate that number of children in the five cold months.

Supposing the population to be 30,000,000, and the average of life 45 years, it follows, as judged by the statistics of more civilized countries, that about 900,000 children are born annually. Of these one-fourth die in their first year of life, and may be disregarded, leaving 675,000 to be vaccinated. To vaccinate them all would require 450 vaccinators. And the more the Government permits the approach to that standard of establishment—the Vaccine Department continuing their good work of vaccination, most carefully and commonly in infants and children only, as I have seen it—the nearer the desired day of change will come.

OF DEATHS FROM CHOLERA.

20. In the year 1869, cholera was epidemic in many districts of this province. The disease, of which I saw many cases amongst the native population, was true cholera morbus, in its most fatal type, and I purpose placing on record here a history of its course, and some account of any peculiarities concerning it which have come to my knowledge during the past year. In these respects I have been greatly helped by the fact that the answers to the questions concerning this cholera epidemic, circulated to Civil Medical Officers by the Sanitary Commissioner with the Government of India, were allowed to pass through my Office.

It is worthy of notice that, although the disease was widely spread as an epidemic, certain of the districts escaped altogether, and in others, the disease, although frequently present, never became epidemic.

21. To illustrate this, I have prepared the following table :—

Statement of Deaths from Cholera in 1869, *in all Districts, arranged in order of importance as regards Deaths from this cause.*

Number.	Districts.	Population.	Deaths from cholera in 1869.	Deaths from cholera to 1000 of population.
1	Kumaon,	3,85,790	0	0
2	Gurhwal,	2,48,742	0	0
3	Teraie,	91,802	0	0
4	Dehra Doon,	1,02,831	1	0
5	Bijnour,	6,90,975	68	0·1
6	Saharunpore,	8,66,493	182	0·2
7	Moozuffurnuggur,	6,82,189	166	0·2
8	Boolundshahur,	8,00,481	155	0·2
9	Moradabad,	10,95,306	195	0·2
10	Shahjehanpore,	9,18,850	257	0·3
11	Furruckabad,	9,15,943	325	0·3
12	Allygurh,	9,25,538	429	0·4
13	Etah,	6,14,351	242	0·4
14	Meerut,	11,99,593	565	0·4
15	Mynpoory,	7,00,220	349	0·5
16	Bareilly,	14,64,199	927	0·6
17	Etawah,	6,26,444	449	0·7
18	Budaon,	8,89,810	1,141	1·3
19	Muttra,	8,00,321	1,060	1·3
20	Futtehpore,	6,80,786	952	1·4
21	Agra,	10,28,544	2,015	1·9
22	Banda,	7,24,372	1,393	1·9
23	Allahabad,	13,93,183	2,914	2·1
24	Cawnpore,	11,86,862	2,801	2·4
25	Jounpore,	10,15,427	2,863	2·8
26	Bustee,	14,55,697	4,349	3·0
27	Humeerpore,	5,20,941	2,059	3·9
28	Goruckpore,	19,33,816	8,593	4·3
29	Benares,	7,93,277	3,527	4·4
30	Mirzapore,	10,54,413	4,795	4·5
31	Jhansee,	3,57,774	1,794	5·0
32	Azimgurh,	13,85,872	8,816	6·3
33	Jaloun,	4,05,272	2,592	6·4
34	Ghazeepore,	12,32,403	10,812	8·1
35	Lullutpore,	2,48,146	2,702	10·9
	Total,	2,95,88,653	69,488	2·3

22. From this table it would appear that cholera was absent altogether in the hill districts, and in the district immediately bordering the hills; that it was little prevalent in the districts lying north of the 27th degree of latitude; that it was epidemic only in the districts to the south of that degree; and markedly epidemic only below the 26th degree.

23. In considering this question of the course of the disease, it will, I think, therefore be best to commence with the most southerly districts, that is, those lying between the 24th and 26th degrees of latitude.

They are from east to west, Ghazeepore, Azimgurh, Jounpore, Benares, Mirzapore, Allahabad, Banda, Futtehpore, Humeerpore, Jaloun, Jhansie, Lullutpore; and as though to show unmistakeably that geographical position, either to east or west, availed nothing in preventing the appearance of the disease, Ghazeepore, the most easterly of all, and Lullutpore, the most westerly, were the two districts which suffered most.

24. The following statement of deaths from cholera in these southerly districts, for every month in the year, will show that the disease commenced in the east as early as January, but did not trouble the people to the west until May, spreading apparently from east to west, but not disappearing, or greatly decreasing anywhere until October:—

Monthly Statement of Deaths from Cholera, for 1869, *in the Southerly Districts, arranged in order from East to West.*

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Ghazeepore, ...	10	5	11	176	694	1,343	2,422	4,194	818	75	6	14	9,768
Azimgurh, ...	6	12	10	52	260	1,018	2,204	3,196	1,155	691	203	9	8,816
Jounpore, ...	9	7	79	381	509	606	491	597	104	62	7	11	2,863
Benares, ...	8	24	98	233	352	702	720	1,090	262	25	7	6	3,527
Mirzapore, ...	...	30	253	296	607	977	901	883	543	327	12	26	4,855
Allahabad, ...	16	52	179	283	642	280	260	1,089	47	10	6	...	2,864
Futtehpore, ...	...	1	281	8	25	474	163	136	122	66	24	...	1,300
Banda, ...	...	...	...	...	221	123	410	197	321	36	85	...	...	1,393
Humeerpore, ...	...	...	...	1	...	32	55	759	957	212	39	4	...	2,059
Jaloun, ...	...	...	...	2	3	36	571	319	1,250	322	75	...	...	2,578
Jhansie, ...	...	...	...	...	1	...	35	163	1,438	152	5	...	...	1,794
Lullutpore, ...	...	...	...	...	...	20	1,186	779	479	219	13	6	...	2,702
Total, ...	49	131	914	1,654	3,300	7,657	9,378	15,630	3,992	1,473	275	66	44,519

25. It may be further noted from this table, that in the eastern districts, cholera was present in every month of the year. It is not necessary to dwell on this point, because I think it is now well known that cholera is never entirely absent from those districts. Certainly I believe it has a permanent home there, and is ready in any year to extend to the west and north as circumstances favourable to its spread arise. And I should suppose the comparatively badly nourished state of the people last year, and, perhaps, the unusual heat experienced, may have given rise to such circumstances.

26. The appearance of cholera, as an epidemic, in the districts north of the 26th degree of latitude, occurred at a period considerably later than its appearance in the southerly districts, so that it might, perhaps, be justifiable to say that it spread north-

wards, after it had passed from east to west in the southerly districts; for example, the disease was not prevalent in Cawnpore, Agra and Muttra, until June; in Allygurh, Mynpoorie, Furruckabad, Barielly and Budaon, until August. But I find it difficult to describe the disease as spreading from south to north, because from the mortuary returns it would appear that the disease was present in nearly all the districts named, during every month of the year, as the following statement will show :—

Monthly Statement of Deaths from Cholera, for 1869, *in the more Northerly Districts.*

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Cawnpore, ...	2	2	5	21	72	183	175	1,281	548	452	56	...	2,798
Etawah, ...	1	...	2	6	6	3	14	30	60	252	67	8	449
Furruckabad, ...	3	...	10	8	6	25	37	121	42	63	10	...	325
Mynpoory, ...	2	4	5	9	9	7	28	51	87	136	9	2	349
Agra, ...	3	5	3	11	39	336	797	568	104	26	7	14	1,913
Muttra, ...	3	2	7	8	13	122	284	337	144	110	23	7	1,060
Allygurh, ...	10	5	2	12	12	53	41	185	76	14	12	7	429
Etah, ...	8	1	6	9	8	30	37	36	22	64	20	1	242
Shahjehanpore, ...	...	...	...	24	13	2	2	2	4	174	35	1	257
Budaon, ...	3	2	7	15	11	9	10	92	350	562	72	8	1,141
Boolundshahur, ...	3	7	4	12	12	14	6	16	50	22	7	2	155
Barreilly, ...	20	14	22	32	19	19	14	204	188	275	123	5	935
Meerut, ...	7	7	5	17	9	21	12	45	152	240	34	16	565
Total, ...	65	50	78	184	229	824	1,457	2,968	1,827	2,390	475	71	10,618

27. From this it would seem that cholera is always to be found in some part or other of almost every district, from one year's end to the other, and I cannot but believe that as the mortuary statistics of the province increase in accuracy, this fact, so constantly shadowed by the existing returns, will become established as indisputably true.

If cholera is always present, I should suppose an epidemic constitution of the atmosphere is all that is necessary to cause its increase suddenly anywhere, and especially in any place where unfavourable sanitary conditions exist.

As regards these provinces, I think the season of great heat is likely to encourage the production of such epidemic constitution, and that the season of rain, adding moisture to the heated atmosphere, strengthens the influence, or secret power, acting injuriously on mens' constitutions; so that, in this Tropical climate, the people may expect to escape undue suffering from epidemic disease only when surrounded by favourable sanitary conditions.

28. The course of cholera during the past year, as shown in the preceding table for the northern districts, illustrates clearly this tendency of cholera disease to become epidemic in the hot season, and to increase in fatality after the rains commence; and the same fact was noticed in the returns for 1868.

29. It is necessary I should explain that the figures in the return, as in all the existing mortuary returns, are only valuable as showing where, and to what relative extent, disease prevailed amongst the people; and, as regards the determination of the question as to whether cholera is or is not endemic in this province, the returns witness in favour of its being endemic, more especially in the eastern districts, and I should add that the Civil Surgeons of those districts have, with the exception of the Civil Surgeon of Jounpore, recorded an opinion favourable to that view.

Of the northern and western districts, the Civil Surgeons of Boolundshahur, Furruckabad, and Futtehpore, record a like opinion; and altogether it seems not unjust to suppose that the permanent home of cholera is extending from east to west, and that consequently the people of this province are more and more likely to have the disease amongst them, in an epidemic form, in coming years.

30. That the rapid means of communication now in existence is likely to increase this tendency, I think there can be no doubt, and during the past year at least one undoubted instance of the introduction of cholera, by means of the railroad, has been recorded. I allude to the case of a traveller by railway, who was taken out of the train at Ghazeeabad, dying of cholera, the disease appearing immediately afterwards at Ghazeeabad, and soon after at Meerut. Also there is reason to think that the very severe epidemic which raged at Allahabad from February to September, commenced with the case of a man who was taken out of a railway carriage, in a moribund state from cholera, and carried to the Colvin Dispensary in Allahabad, on the 19th of January.

31. The progress of the disease in the several districts where it became epidemic may be stated concisely as follows, taking the districts from north-west to south-east.

In the Meerut District, it commenced as an epidemic on the 15th August at Ghazeeabad, after the arrival of the traveller spoken of above. On the 18th August it appeared at Meerut city and its neighbourhood, and continued there to the 12th November. In all, only a few places in the district were visited by the disease.

In the Boolundshuhur District, it commenced on the 18th August at Khoorjah. The first person attacked was a resident of the place, 30 years of age. The disease declined by the end of September, at Koorjah, and then appeared at Koorala, a Chumar village, five miles distant; and did not appear at any other place.

In the Budaon District, it commenced at Ooseith on the 12th August, and spread to Budaon city on 20th August; but did not appear at any other place.

In the Muttra District, it appeared in July, in several places simultaneously. It was, however, at first especially noted at Juleysur, but quickly spread to places in all parts of the district.

In the Agra District, the Civil Surgeon records that cases occurred in every month from January to May, when the disease became epidemic, and was prevalent in all parts of the district at the same time, terminating in October.

In the Furruckabad District, the disease appeared on 6th July, and was prevalent simultaneously in different parts of the district, and terminated in the beginning of November.

In the Cawnpore District, the disease appeared in epidemic form in May, and became prevalent in all parts of the district.

In the Futtehpore District, the disease first appeared on 12th February, and became equally prevalent in all parts of the district.

In Jaloun District, the disease commenced on 14th July, and became most prevalent in the towns.

In Banda District, the disease commenced on 17th April, and no part of the district escaped.

In the Allahabad District, the disease commenced in January, and became prevalent in all parts of the district simultaneously.

In the Lullutpore District, it commenced on 26th May, became prevalent in all parts of the district, especially in the towns, and ceased about the middle of September.

In the Jounpore District, it commenced on 16th March, and appeared in different parts simultaneously, no part altogether escaping.

In the Benares District, the disease is reported to have occurred in every month since April, 1857. This year it became epidemic in February, and was prevalent in all parts, having no definite line of progress.

In the Ghazeepore District, the disease was present in every month, was present simultaneously in many parts, and no place escaped entirely.

In the Azimgurh District, the epidemic commenced on 20th February, at the southern and eastern parts of the district, spreading gradually towards the north, until it reached Azimgurh city on 7th May; after that date the disease was generally distributed over all parts of the district, and very fatal until the 7th August, from which time it began to decline.

32. I think these short histories teach us that, at least as far north as Agra, the causes which give rise to cholera seem to exist nearly everywhere in the province. We have nowhere a history of the disease sweeping across the country from east to west or from south to north: for, although it appeared to spread in those directions, yet once established in a district, only the on coming of the cold season appears to have been effectual to prevent its continuance.

33. Only in one district is there a history of the disease apparently radiating from a centre. This occurred at Goruckpore, where cholera appeared amongst a collection of people assembled to witness an execution, and was apparently distributed by the people when they dispersed to surrounding places. In Shahjehanpore a suspicion arose that the cases which occurred in April were due to the importation of the disease from Setapore fair, but the cases which occurred in October, when the disease was most prevalent, could not, it is believed, have been due to such cause.

With these exceptions, the testimony of the Civil Medical Officers seems to be unanimous to the effect that the disease did not radiate from any centre.

Also, in Meerut, the disease is believed to have followed the main lines of traffic of the Railway and Grand Trunk Road; in Budaon, to have followed the main line of traffic from Furruckabad. In all other districts the disease spread irrespective of main lines of traffic.

34. No measures of quarantine were attempted anywhere.

35. With regard to the importation of the disease, the testimony of the Civil Medical Officers is as follows:—

It is believed to have been imported into Meerut by Railway; into Budaon by main traffic road from Futtehgurh; into Mynpoorie from Mewar, and other native states, by starving travellers seeking employment; into Etawah from Gwalior; into Jaloun from Jhansie, Gwalior, Etawah, and Cawnpore; into Lullutpore from Saugor. As regards an outbreak at Seetawur in Ghazeepore, it is said to have commenced with the case of a man who had been to a wedding party at a town in Chuprah, where cholera was epidemic at the time. In all other districts, either satisfactory evidence of its importation is said to be wanting, or its importation denied.

36. As regards the spread of the disease by personal intercourse, and the danger to friends or other persons attending on cholera cases, the evidence is reassuring. With the exception of Meerut and Boolundshuhur, the evidence from all the districts is that no facts have come to notice showing that the disease has been so spread, or that any unusual danger attends the ministering to cholera patients. At Meerut an attendant on a cholera patient, and a native doctor attending cholera patients, both died of cholera. The sweeper of the cholera hospital attended patients in the general ward, four of the patients were attacked with cholera. In Boolundshuhur a native doctor, treating cholera patients, died of cholera, and the disease seems to have been spread from Khoorjah to Coorala by personal intercourse, as the Chumars in both places, who frequently communicated, suffered most.

I should add that, in Allahabad, a native doctor attached to the Sanitary Commissioner's Office, and specially employed in treating cholera, died of cholera.

37. The deaths from cholera in the Police Force of the districts in which cholera was most prevalent, will appear in the following statement, which has been prepared with a view to providing the best available test of the comparative correctness of the mortuary returns of the general population. It will, I think, show that those returns, probably, are not entirely worthless; and I should here state that during my journies of the past six months, I have been, if anything, favourably impressed, in many places, with regard to the reality of the registration, and the carefulness of the putwarries in keeping it:—

Statement of Deaths from Cholera in the Police Force of certain Districts, in 1869.

District.	Strength of Police force.	Deaths from Cholera.	Deaths in 1,000 of Police force.	Deaths from the same cause in 1,000 of population.	Remarks.
Meerut, ...	1,500	0	0	0·4	
Shahjehanpore, ...	628	0	0	0·3	
Muttra, ...	760	0	0	1·3	
Agra, ...	1,436	5	3·4	1·9	
Furruckabad, ...	983	0	0	0·3	
Jaloun, ...	784	0	0	6·4	
Jhansie, ...	840	0	0	5·0	Population of districts concerned, 1,45,88,821.
Lullutpore, ...	551	3	5·4	10·9	
Cawnpore, ...	970	0	0	2·4	
Allahabad, ...	2,018	7	3·4	2·1	Deaths from Cholera registered, 49,997.
Humeerpore, ...	500	3	6·0	3·9	
Jounpore, ...	488	0	0	2·8	
Azimgurh, ...	575	2	3·4	6·3	
Mirzapore, ...	759	4	5·2	4·5	
Benares, ...	650	5	7·7	4·4	
Ghazeepore, ...	850	6	7·0	8·1	
Total, ...	14,262	35	2·4	3·4	

38. Concerning the cause of cholera, or the mode of its distribution, nothing definite, as far as I know, has been recorded in the past year; even the belief that cholera is distributed by means of the water supply, has been, I think, a little disturbed by a record of the fact, that wherever cholera prevailed, those attacked and those who escaped drank from the same wells.

39. The peculiar meteorological phenomena happening at places where cholera was epidemic, have been recorded as follows:—

In Boolundshuhur District, heavy falls of rain, and during the intervals of rain cholera increased.

In Furruckabad District, ozone was noticed to be deficient. Rain commenced on 1st July, and cholera on 5th July.

Rain ceased on 10th October, cholera ceased 31st October; cholera did not appear anywhere until after rain had fallen.

In Jaloun, sudden changes of temperature occurred, and as the thermometer rose, cholera increased in severity; as it fell, cholera decreased in severity.

In Banda, the temperature averaged 10 degrees higher than usual, in May and June, and the rains were heavy, but cholera did not appear to be influenced by wind or weather.

In Jounpore, a storm of thunder and lightning occurred on the day cholera ceased in the Jail and began to decline in the town.

In Azimgurh, a marked absence of thunder storms is recorded.

In Mirzapore, a short cold season, unprecedented heat afterwards, and long steady hot winds were experienced; as the temperature increased, cholera increased, and *vice versa*.

In Ghazeepore, the weather is described as unbearably hot, damp and depressing, with east wind in the cholera time.

In Budaon, cholera became epidemic after the rain-fall of 11th and 12th August; no more rain fell, and cholera increased up to 28th August, when rain again fell, and cholera declined.

In Humeerpore, cessation of rain seemed to cause increase of cholera.

In Ajmere, cholera increased after a heavy fall of rain; cholera, in the hot dry months of April and May, was less fatal than cholera in the rains.

Taken as a whole, the evidence favours the opinion that a high temperature of the atmosphere is favourable to cholera: an atmosphere at a high temperature, and saturated with moisture as the result of rain-fall, most favourable.

40. As regards the peculiarities of the soil favouring cholera, it is recorded that in Furruckabad, in low land sometimes under water, and well manured, thickly peopled land on the banks of the Ganges, cholera prevailed most.

In Jaloun cholera is said to be more prevalent, and to remain longer in places on low ground, and where the soil is retentive of moisture.

In Allahabad, it is recorded that people living in barracks which stand on a badly drained piece of ground, seemed to be more liable to cholera than the same class of people living in barracks built on drier soil.

In Mirzapore, cholera prevailed in the village of Akhoree, which is situated on rising ground, with a rocky base. The disease continued for a month, and was very fatal, the people of surrounding villages, on lower ground, escaping altogether.

For the remaining districts no information on this point is recorded.

41. From the evidence recorded, the opinion might have been entertained that the people of a place having a low moist site, would be more likely than any other to suffer from cholera. But the Mirzapore record must not be overlooked. The village of Akhoree, which I have inspected, stands on a hillock of sandstone, and has a site as dry as stone can make it. Yet in this village the mortality from cholera, during the epidemic under consideration, averaged 15·7 in a thousand of the inhabitants.

42. As regards measures recommended for preventing the appearance and spread of cholera, the following is the record, which I give more in detail, as being the subject of greatest importance concerning this matter:—

In Meerut, improved drainage, improved ventilation, and greater care in preserving the wells from impurities, are recommended. To prevent the appearance of cholera, to prevent its spread from house to house, visitation of native doctors,—instructed to teach segregation and disinfection while treating the sick—is commended. The establishment of cholera hospitals, condemned.

In Budaon, strict quarantine of the district is recommended to prevent the appearance,—immediate removal and burial of cholera discharges, to prevent the spread—of the disease.

In Shahjehanpore, quarantine on the outskirts of the district is recommended.

In Muttra, greater attention to sanitary requirements in all cities and bazaars, and the providing of a native doctor for every village.

In Furruckabad, the necessity of daily disinfection of dwellings is strongly insisted on for the prevention of cholera, upon the grounds that cholera may possibly originate, or may grow, in the accumulated products of the waste of the human body. The daily leeping with cow-dung and mud of native houses, and weekly limewashing of Europeans' houses and Barracks, is the form of disinfection commended.

In Jaloun, the disinfection of the atmosphere by fumigation with chlorine, or carbolic acid gas, the use of lime whitewash and disinfectants generally, the covering in of the wells, and the greatest attention to cleanliness everywhere, are recommended as measures of prevention.

In Cawnpore, improved sanitation is recommended; and especially the carrying of the bodies of persons dead of cholera, from place to place, should be forbidden.

In Banda, the necessity of enforcing cleanliness, behind, as well as in front of native residences, is insisted on.

In Jounpore, the removal of all healthy individuals, from an infected locality, to one 50 miles off and free from the disease, is recommended for troops, prisoners, and other compact bodies of Government servants. For people who must remain in the infected locality, a daily dose of quinine with lime-juice, is recommended.

In Goruckpore, the construction of a regular system of drainage, the purification of the tanks, and the utilization of impurities for agricultural purposes, are recommended for the cities.

In Bustee, improved sanitation of towns, and the granting of a more extended and stronger power to the sanitary officer (Civil Surgeon), as regards the control of sanitary measures, are advised.

In Azimgurh, the improvement of the sanitary state of the city, by raising the roads, by preventing the too thick growth of trees, by lowering enclosure walls, by improving the tank, is urged. Strict quarantine, as regards an infected village, is recommended, and the necessity of preventing the removal, by the Police authorities, of the bodies of those dead of cholera, from the villages to the sudder station, for *post mortem* examination, is strongly urged; as many such bodies were so moved in the recent epidemic, and were a cause of the spread of cholera. The annual cleansing of wells in villages, and the use by the inhabitants of shallow trenches, as latrines, should be encouraged.

In Mirzapore, the keeping of towns and villages in a cleanly state would, it is believed, cause the disease to die out. The carrying of dead bodies to the sudder station, for examination, is condemned as a useless, disgusting practice, productive of harm to the inhabitants of villages through which the body passes. The throwing of dead bodies into the river, is condemned.

In Benares, better conservancy arrangements in towns is recommended, and the establishment of a quarantine for pilgrims passing through the city from any fair where cholera is known to have been.

In Ghazeepore, the enforcement of municipal rules by law, more careful conservancy everywhere at all times, and a strict guarding of the river's bank, to prevent cholera patients passing over to Ghazeepore city, are recommended.

43. The measures taken for the medical treatment of cholera amongst the general population during this epidemic, consisted in the appointment of native doctors, specially charged with the treatment of cholera patients, wherever the disease became very prevalent. The native doctors were supplied with medicines, especially with the well known cholera pills, of which a large quantity were distributed. In some districts these pills were furnished to the police stations for distribution to all applicants.

It is quite impossible for me to say what amount of benefit resulted from the medical treatment thus supplied to the Officers, but on more than one occasion I had opportunity to notice the eagerness with which sick people availed themselves of the advice and medicines of the native doctor, wherever he could be found.

44. In some villages where the disease was very prevalent and fatal, and where no medical aid had reached the sufferers, until about the time of my visit, I noticed that the pole were very desponding, paid little attention to the sick, (thinking they would all die) and were determined to desert their homes, as many had already done. This custom of flying from a place where cholera has become unusually prevalent, is, I think, becoming fashionable with the inhabitants of the province generally; nor do I think it should be discouraged, for the condition of things in an ordinary native village, when cholera prevails in it, is very sad; sick people lie in many of the huts, often upon the bare ground; no thought is given to the maintenance of cleanliness, and the excretions, so plentifully poured out in this disease, fall upon the ground, and are allowed to dry up where they fall.

So long as this method of procedure prevails, as prevail it will until the people learn that the peculiar poison producing the disease is present most plentifully in the haracteristic rice-water evacuations, I cannot suppose a wiser course of conduct for any resident of a cholera infected village, than to take himself and his family out of it with all reasonable despatch.

This careless conduct as regards the disposal of the excretions resulting from the disease, is a fact of very grave importance, as it is highly probable, seeing the rapidity with which the discharges must pass into a dry state, under the burning rays of a tropical sun, that in India, dust, bearing the poison of cholera in a dry state, has a large share in the mode of propagation, and when the disease has once prevailed, the poison may thus be left behind, perhaps dormant while dry, but ready to cause a new outbreak at any time. If this is so, and there seems little room to doubt it, and if, as seems equally true, people who habitually respire an impure atmosphere are most susceptible of the disease, I cannot see how the teeming people of the towns and villages of this province ever can be saved from the cholera epidemics which appear now to occur every year in greater or less degree, until cholera excretions are widely disinfected, and attention to the simplest rules of sanitation everywhere have resulted in supplying a purer atmosphere for the people to breathe.

45. With regard to the existing state of the atmosphere, by personal experience I know it be very impure in many places. I think it very impure in all places where many people live together in this province. The real state of affairs, as regards this point, can only be well judged by visits to the centres of population in the hot and rainy seasons. I rest contented with a plain statement of the fact, as it appears to me. To those who doubt its truth, the path of investigation is open. To those who will accept my judgment, and are so situated as to be able to help towards providing a purer atmosphere, I would say, search out every place, (especially excavations) in a given site, from which emanations from the decomposition of animal refuse arise, a cause determined to have a more or less constant connection with the development and propagation of cholera, and let there be no rest until such places are reclaimed to purity, always remembering that, in a matter of this kind, impurity within the precincts of a house, or at the back of houses, is as hurtful as impurity in more public places.

46. It will be seen that the collective opinion of a great part of the Civil Medical Staff of this province, as regards the measures fittest to be taken to prevent such frequent appearance of cholera in its fatal and epidemic form as now prevails, may be shortly stated as measures for the improved sanitation of the province generally and especially of the principal centres of population. This, moreover, is, as far as I have had opportunities for learning it, the opinion of the majority of the Medical Officers in this province, of every service or class. It is an opinion which has, I believe, been often submitted to Government before, but I give prominent notice to it here, with a hope that its repetition may add strength to my recommendations of sanitary improvements, which will follow when I come to write of the towns I have inspected during the past year. And while my mind dwells on this important point, I trust I may be excused if I endeavour to illustrate the really extraordinary difficulty which attends the practical realization of the

desires of sanitary authorities, by a passing reference to the results which have, after the elapse of nearly a year, followed the recommendations of the special Sanitary Committee assembled at Allahabad last year.

The most urgent recommendations of that Committee were;—the removal of impurities to a greater distance from the station, and their utilization in agricultural operations; the remodelling of Kuttra, and its perfect conservancy;,the reclamation of the excavations which exist in and about the station, or their entire removal; the perfect drainage of the low land inside the Bukshee bund. Up to the present I do not think any one of these four most important recommendations have been acted on in any way whatever.

Certainly a more perfect conservancy has been established in the station generally, and all that has been done has been in the direction of the Committee's recommendations; but the most important of these recommendations seem not unlikely to be overlooked.

PART II.

47. During the past year I have inspected the following towns and cities in the Agra Division:—

1.	Furruckabad,	Furruckabad District.	17.	Khasgunj,	Etah District.
2.	Kunouj,		18.	Soron,	
3.	Futtehgurh,		19.	Mahrerah,	
4.	Kaimgunj,		20.	Alleegunj,	
5.	Shumshabad,		21.	Etah,	
6.	Tutheea,		22.	Sukeet,	
7.	Allahgunj,		23.	Doondwara,	
8.	Taligram,		24.	Agra City,	Agra District.
9.	Chibramow,	Etawah District.	25.	Ferozabad,	
10.	Etawah,		26.	Futtehpore Seekree,	
11.	Phupoond,		27.	Kotlah,	
12.	Oreiya,		28.	Pinaht,	
13.	Mynpoorie,	Mynpoorie District.	29.	Bah,	
14.	Sheikoabad,		30.	Muttra City,	Muttra District
15.	Bhowgaon,		31.	Bindrabun,	
16.	Kurhul,		32.	Jelleysur,	
			33.	Kosee,	
			34.	Mahabun,	
			35.	Chuttah,	

48. As my journeys to the places mentioned were all performed on horseback and in the day time, I have had a favourable opportunity of seeing the Agra Division and its inhabitants, in all parts; and a brief notice of the Division, as a whole, may perhaps well precede my descriptions of its centres of population.

49. The Agra Division includes the Districts of Furruckabad, Etawah, Mynpoorie, Etah, Agra, and Muttra.

It consists of a wide surface of the Doab between the Ganges and Jumna, and a narrow surface west of the Jumna. North and east our own territories of Rohilkhund and Oudh,—west and south the Native States of Gwalior, Dholepore and Bhurtpore, bound it.

50. In travelling over it as I have done during the past year, it frequently occurred to me to divide the division into the wide, well favoured, sweet water, Doab land, of extreme fertility, where scarcely a stone could be found; and the narrow, less fertile country across the Jumna, with deep wells, often brackish water, and where stone is plentiful. The Doab is naturally well watered with comparatively shallow wells, its

nuddees-Boodh Gunga, Kalundree, Eesun, Urrund and Sirsa, supplemented by two great branches of the Ganges canal:—the Trans-Jumna country, has but a single nuddee—the Khari.

51. However, although these two parts of the Division seem to the traveller to differ so much, the effect as regards the population, their numbers and comparative comfort, seems to be very little indeed; everywhere a dense population exists. If anything the people seem to be more numerous Trans-Jumna than in the Doab, as certainly they are, I think, stronger and more frank.

52. The following table, compiled from the statements of the Census of 1865, exhibits the most interesting particulars concerning the population of the Division:—

Number.	District.	Males.	Females.	Total.	No. of persons to each square mile.
1	Agra, ...	5,57,239	4,71,305	1,028,544	549
2	Furruckabad, ...	5,01,579	4,14,364	9,15,943	541
3	Muttra, ...	4,35,070	3,65,251	8,00,321	496
4	Etah, ...	3,42,287	2,72,064	6,14,351	437
5	Mynpoorie, ...	3,91,885	3,08,335	7,00,220	420
6	Etawah, ...	3,48,997	2,77,447	6,26,444	384
	Total, ...	2,577,057	2,108,766	4,685,823	474

53. The Agra Division then is a tract of country in this Province, supporting a population of 474 to the square mile,—the largest average ratio of population of any division. It is essentially a land of Hindoos, and contains their Palestine, the holy Bruj country. The percentage of Mahomedans in the Division is only 8·29.

Within the division are two cities of more than 50,000 inhabitants; 3 towns of more than 20,000 inhabitants; and 36 towns of more than 5,000 inhabitants. The total population of the above cities and towns is 6,23,783, the remaining population of 4,062,040 inhabiting the large and small villages which number 7,859.

54. I need scarcely say that a country so populous must of necessity be well cultivated; indeed, I should think the cultivation of the soil is so general that not any land in all the division, which can be profitable cultivated with the means at hand, is left untilled. Tracts of Oosur land, so impregnated with alkaline salts that no at present known plan of management will make them profitably productive, are not uncommon; but land lost to cultivation by jungle growth, or the existence of swamp, is hard to find. In the Doab districts the spring level averages from 30 to 40 feet in depth from the surface. Trans-Jumna it averages from 50 to 70 feet. But the practice of irrigation, by means of bullocks raising a large leathern bucket, is so thoroughly understood, that the difference seems to trouble the agriculturalists very little. Trans-Jumna the wheel increases in diametre, the bullocks are larger, the men sing at the wells as sailors do at a capstan, but everywhere in the division the watering, except where the canal interferes, is carried out in the same way with ceaseless energy. In this division, as indeed in all parts of the Province, a large majority of the population are agriculturalists. The figures of the Census Report give, in the Agra Division, 2,751,555 as the number of persons employed in agriculture, out of a total of population of 4,685,823. Certainly the great business of the people is the cultivation of the soil and the sale of its produce, and a consideration of this fact will suffice to show how serious any failure of the usual productiveness is likely to be;—how very likely that under such circumstances a vast number of persons may be quickly reduced to the verge of starvation.

55. The year 1868-1869 was a year, as regards the Agra Division especially, in which little rain fell, and the food crops greatly failed.

This unusual want of rain in the division is illustrated in the following table, showing, in juxtaposition, the rain-fall of 1868 and 1869, which may be considered a year of average rain:—

District.	1868 Average rain-fall in inches.	1869. Average rain-fall in inches.
Etah, ...	10·8	28·6
Mynpoorie, ...	8·9	27·9
Muttra, ...	11·0	21·1
Agra, ...	12·3	25·8
Furruckabad, ...	11·0	30·4
Etawah, ...	12·4	30·8
Average of the six Districts, ...	11·1	27·4

It follows that the fall of rain, in 1868, was more than 16 inches less than the average, and the reality of this misfortune may best be understood by a consideration of the fact that every acre of land was robbed of some hundred tons of water which should have fallen upon it for its fertilization, and the nourishment of its crops.

This misfortune of 1868 was a cause of much suffering to the people in 1869, a suffering yet manifest during my journey of inspection, as late as the commencement of 1870. The people being often seen sweeping the ground for the collection of seeds of grasses to be consumed as food.

56. That this suffering has resulted in an increased death-rate for the year, in the division, cannot be matter of surprise, and as this increase is very manifest in the Mortuary Returns which have been submitted from the Agra Division, I give the figures here separately:—

District.	Total deaths in 1868.	Total deaths in 1869.
Muttra, ...	8,689	18,079
Agra, ...	16,441	28,527
Furruckabad, ...	7,238	12,935
Mynpoorie, ...	8,646	12,311
Etawah, ...	4,365	10,559
Etah, ...	8,606	10,216
Total, ...	53,985	92,677

The addition resulting in a total for 1869 approaching to double that for 1868.

It is quite true that the increased death-rate is due in greatest part to deaths from small-pox and cholera, but I think it is very likely the unusual mortality from those causes may have occurred in connection with the condition of general suffering. For experience, I think, has shown that famine and pestilence go hand in hand, and that the people really suffered from famine during the past year, no person who saw much of them can doubt.

57. Taking the districts fron east to west, I will commence my descriptions of the towns of this division, with Furruckabad.

CONDITION OF THE TOWNS OF FURRUCKABAD.

58. The towns of Furruckabad are 9 in number, and taken in order of importance, as regards inhabitants, stand thus:—

	Inhabitants.
1.—Furruckabad City, ...	73,110
2.—Kunouj, ...	17,577
3.—Futtehgurh, ...	10,333
4.—Kaimgunj, ...	8,650
5.—Shumshabad, ...	8,428

6.—Tutheea, ...	7,382
7.—Allahgunj, ...	6,246
8.—Taligram, ...	6,104
9.—Chibramow, ...	5,261

Of these only Furruckabad enjoys a Municipal Government.

FURRUCKABAD.

59. The City of Furruckabad, and its sanitary state, were described in my last Annual Report, it will therefore suffice here if I report, that it is a busy city, well built in many parts and an old seat of trade, whose merchants are struggling against the unexpected difficulty which has arisen for them in the fact that trade has been diverted from Furruckabad by the completion of the rail-road, which, in passing across the Doab from Cawnpore to Etawah, leaves Furruckabad far away to the north. No doubt this was unavoidable, but nevertheless it may be justly regretted. The three towns Cawnpore, Furruckabad and Etawah, are about equally well known to me, for I have carefully inspected them all, and neither the first or last have anything to show which can compare with the long, busy, well built bazaar of Furruckabad, or the great houses to be found in different parts of that city; and even to-day the manufactures of brass, iron, and cloth of Furruckabad are esteemed by the people, above, perhaps, those of any place in the Province. Nevertheless, it cannot be doubted, that the continued prosperity of this favourite city has been hindered, by the denial to it of railway communication.

The completion of the Oudh and Rohilcund railway, by which the trade of Rohilcund will pass by Anoopshahur to Allygurh, will undoubtedly result in a further loss of trade to Furruckabad, which seems destined to decline in importance.

60. The approach of this decline is showing itself by a progressive lessening of the Municipal revenue, as the following table shows:—

Year.	*Revenue.*
1865-66, ...	Rs. 80,661
1866-67, ...	,, 75,996
1867-68, ...	,, 63,869
1868-69, ...	,, 61,552

But although the revenue decreases, there does not appear to be room for great anxiety concerning its future, so long as it is found possible to collect a revenue even somewhat less than that of 1868-69, without, as is now the case, taxing grain. The tax on this import, which in many other municipal towns forms a very reliable source of income, is kept in reserve at Furruckabad, and may with propriety be brought to supplement the failing revenue whenever the authorities desire it.

61. The total revenue for 1868-69, was, as stated above, Rs. 61,552. Of this the following amounts were expended in works of improvements, *viz*:—

Expended for Engineers' Establishment,	1,864
,, ,, Conservancy, ...	7,139
,, ,, Original Works, ...	9,839
,, ,, Repairs, ...	3,024
,, ,, Lighting, ...	2,338
,, ,, Public Garden, ...	1,137
,, ,, Watering, ...	788
,, ,, School, ...	550
,, ,, Poor-house, ...	75
,, ,, Purchase of stock, ...	73
,, ,, Vaccinator, ...	120
Total, ...	26,947

The percentages of Expenditure stand thus:—

For Works of improvement, ...		44·2
,, Police, ...		33·5
,, Collecting, ...		10·0
,, Contingencies and Refunds, ...		3·9
,, Balance in hand, ...		8·4
Total, ...		100·0

62. I inspected this city on the 4th of December last, and noticed a very considerable improvement in the managements for its conservancy; this appeared to be due, in great measure, to the appointment of a new darogah-sufae, who was performing the duties of Inspector of Nuisances, and Manager of the sweeper gangs, with energy and attention; an improved form of conservancy cart was seen to be in use, twelve of which are employed in carrying away the impurities, daily collected by a staff of 100 public sweepers; a great number of barrels, mounted on wheels, have also been brought into use for carrying away liquid impurities, and altogether the matter of improved conservancy is making good progress in a right direction in this city. Its roads and their side-drains were noticed to be remarkably well kept. The Sadhwara mohulla, found so neglected last year, was noticed to be much improved, but yet filthy drains were seen there, and especially the deep square drains which run down the centre of the lanes.

63. The drinking water of this city is remarkable for its goodness, but sufficient attention is not given to the drainage of the surfaces surrounding the wells, which are numerous and well constructed. I think the Municipal authorities might give attention to this matter with good results as regards the health and comfort of the people.

64. Now that the tanks or water-holes within the city walls have been considerably improved, and their cleanliness cared for, the roads and ways carefully consolidated and daily swept, the drainage so far perfected that excessive rain-fall runs away everywhere, I would call attention to the outskirts of the city, and especially to the large excavation into which, the wide waterway in Fuzzul Inam mohulla, empties itself. The waterway itself, for a great part of its length, is a wide, deep, open brick-built drain, taking up nearly all the roadway. It is continued by an earth-work cutting, ending in the large excavation called Fuzzul Inam talao situated just within the old mud wall of the city. This excavation is in a bad sanitary state, its sides are very irregular, its bottom much broken into holes. Pigs frequent it and greatly stir the ground, disturbing the collections of impurities thrown there by the people who live near to it, and consider it a a proper receptacle for everything they wish to be rid of. Moreover, people dig earth from it whenever they want earth, and so the place, far from improving, grows worse year by year. I confess it is a large place, the result of many years' neglect, and one not likely to commend itself for improvement to any Municipal committee, because of its extent; but I would urge that the existence of so neglected a place is a cause of disease to many, and of debility to all who reside near it; and especially the drying up of the water which lodges in it in the rains, must be very hurtful. I mention especially, as worthy of the immediate attention of the Municipal authorities, the Fuzzul Inam talao, because it is bordered by houses, and stands within the city walls; but a close inspection of this excavation will show, that, where the city wall bounds it, a wide channel has been broken through the wall, so that the talao has become joined to a second great excavation outside the city wall, forming part of quite a region of excavations and old brick-kilns which exists at the south-east border of the city. Rain-water lodges in great quantity here, and undoubtedly the existence of so much broken ground, near to the city, is to be deplored, but as I can see no practicable remedy for this state of things, at present, and prefer always to urge improvement only where it can be made, I would recommend the reclamation of the Fuzzul Inam talao only;—its bed being so raised that trees may be planted in it,—its centre so drained that water cannot lodge in it.

65. Concerning the Mortuary Statistics of this city, to be found in the Appendix to this Report, I should draw attention to the imperfect manner in which the registration of deaths must be effected. The percentage of deaths to population, during the year 1869, appears as 0·57, at which rate the existing population will not all be dead until 174 years hence.

KUNOUJ.

Population, 17,577.

Chowkeedaree, Rs. 5,997.

5 public sweepers employed at Rs. 1-8 each per mensem.

66. I inspected Kunouj on the 11th December. It is a town of good size. The houses built mostly of old bricks, apparently gathered, in most part, from the ruins which abound here. The town stands amongst ravines on the old bank of the Ganges, which is now about 4 miles distant from the town, a wide fertile khadir land intervening. The Kallee nuddee, a narrow stream, runs immediately under the bank on the east side of the town, to cross the khadir land and join the Ganges. The rain-fall at Kunouj drains into the Kallee nuddee, and the town, from its situation amongst ravines, which are not however especially deep or very well marked, is naturally well drained. The land about Kunouj, the site of the ancient Hindoo capital of a great kingdom, is marked by many mounds. The ground is much broken and irregular, and seems to witness to the existence, at some distant period of time, of large collections of houses and a teeming population there. Broken bricks, tiles, and carved stones are plentiful in many places just below the surface. But everywhere the ground is hard and dry and naturally well drained. The water of the wells, which is about 24 feet from the surface, in the comparatively small town which now remains, is often brackish. It was said by the inhabitants that the water of fully half the wells in existence is undrinkable from this cause, a fact it seems reasonable to suppose due to the residence here of the crowds of men and animals in the old days. In the khadir land, across the Kallee nuddee, the water is sweet everywhere.

67. The town possesses a wide, open, clean bazaar, with shady trees, called Toorab Allee bazaar, which is a rather important grain market; near to it there is a much used well,—the surface around it undrained,—the surplus water raised, collecting in a large filthy pool from which water is taken, as necessity arises, to sprinkle the bazaar roadway. The surface of this bazaar and grain market is unmade, and in the rains it must be deep with mud in places. A second well of good water exists here; its mouth, remarkably narrow, is sunk through a small high mound, and there are a few trees about it. This also is evidently a well containing water much sought after by the people, who were drawing it continuously.

68. The Bura bazaar at Kunouj is a long, winding, widish street, about half the length of which is paved with brick, much broken into holes, the remainder is unmade, with saucer-shaped surface, so that rain-water must lie in it from side to side. Heaps of filthy sweepings, of long standing, were seen at the side of the road; some of the houses were noticed to be in ruins, but many good houses and shops line the road on each side. Almost the last house of the bazaar, toward the east end, is the Government school-house, a sadly broken place, the verandah all fallen down, but where, nevertheless, I saw 120 boys collected, all busily employed in learning.

69. As this is the first mention of a school which occurs in this Report, I should like to record here my opinion that of all the public institutions my wide spread journeys of the past two years have brought me in contact with, none have seemed to me more real, as regards the good work being done, than the public schools.

My acquaintance with the officers who conduct the business of instruction is very limited. I know almost nothing of their system and plans, and judge in this matter only by results which show me that the schools are well attended, and the boys learning the truth about things concerning which their fathers either know nothing, or hold a

mistaken belief. As a sanitary officer, it might be argued that I have no concern with this matter, and should not mention it in my official Report; and if my object was only to record a few words of commendation for earnest labour, silently striving in, out of the many places, I should have kept silence. But by showing the goodness of the work done, I desire to make it contrast with the miserable places in which it is often carried on. Take for example, the school-house at Kunouj, with its broken mud walls, imperfect roof and fallen verandah; I think no place could be more unfit for the accommodation of a great number of boys. During many hours of the daytime it affords poor protection from sun and rain, dust must fly through it whenever the wind blows, the floor is imperfectly made, the ground surrounding the school-house is not shaded in any way, or properly drained. All these are likely to be causes of illhealth which should be avoided with carefulness, especially in the case of young people. And besides, seeing how great a result is likely to flow from the better education of the children of this and the next generation, I think, everything possible should be done to encourage the attendance of the boys, and nothing will conduce to this more, than a well kept school-house of good construction, to which parents will be proud to send their children, and the children themselves be able to sit at their lessons in comfort.

70. The important part of Kunouj, as a town, is made up of this long bazaar street and the Toorab Allee bazaar; there are, in addition, many small streets and lanes all unmade, but found kept in fair order as regards cleanliness. Any improvement likely to benefit the people at large can, I think, best be made in these two bazaars. The surface of the grain market might be made with kunkur. The brickwork pavement of the great bazaar should be repaired, and the part of it now unpaved should be so raised as to make the centre higher than the sides. The two wells I have described can be easily found by any inquirer; they are well worthy of attention, and may be greatly improved by covering them with a galvanized iron roof, and by providing means for the escape of surplus water, the pool complained of being filled up.

Lastly, the school-house demands substantial repairs. It is well placed, the site, which is open and not very large, should be carefully levelled and drained, and planted with trees.

71. As far as I could learn, of the rather large Chowkeedaree income of about Rs. 6,000, only Rs 90-- being the pay of the five public sweepers employed—is expended in works of improvement. It seems reasonable to suppose that from this source a larger expenditure for improvements, in the directions pointed out above, might be permitted.

FUTTEHGURH.

Population, 10,333.

72. Futtehgurh, a rather busy town, is four miles distant eastward from the city of Furruckabad. It stands on the banks of the Ganges, and includes the military cantonments, the civil station of the Furruckabad District, and the town of Futtehgurh. It is with the latter that I have more especially to do. But I may say that the site of Futtehgurh, as a whole, is well raised above the Ganges bed, into which excessive rainfall drains readily by means of nullahs, of which, however, only two or three are so large as to attract much attention; and these, where necessary, have been improved so as to facilitate the passage of water into and along them, with very good results as regards drainage which is nowhere seriously defective in Futtehgurh. The civil station lines the Ganges bank high above the wide sandy bed of the river. Everywhere the water of Futtehgurh is perfectly sweet. Shady trees abound on all sides, gardens are numerous and very productive, there are many well made kunker roads, and altogether the station of Futtehgurh is, as an Indian station in the plains,

by comparison a pleasant place to live in, and possesses a well merited character for healthfulness.

73. The town of Futtehgurh, which I inspected on the 6th December, adjoins the civil station. The imperial road to Cawnpore runs through the town, but the really business part of the town stands off the road, on the right hand side of the road on entering, and is hidden by the houses which line the road, so that a casual visitor would have no conception of the narrow ways of crowded shops which exist in this town. The great road is of course well kept in every way, and it serves as a wide channel for fresh air to the town: well built houses and shops line it, and a Police Thannah and Dispensary stand at its margin, and altogether this part of Futtehgurh has a cheerful wholesome appearance. On the left hand side of the road, entering the town from Cawnpore, the houses are not very numerous, the ways are unmade, and the open country soon reached. On the right hand side of the road, the houses are numerous, the ways remarkably narrow, in some places well paved with brick, with centre saucer-drains of good design. This is especially noticeable in the Dal Mundee Mohulla, a long narrow bazaar with closely crowded shops, the roadway very good and well kept, but where, however, a broken hillock, covered with filthy rubbish and sweepings, was noticed at one side of the bazaar street. A partially completed mosque the intending builder of which was said to have died, stands on the bullock and the people now evidently use the place as a receptacle for impurities. With the exception of the paved roadways of the narrow bazaars, the conservancy of the town was noticed to be much neglected, filthy cesspools at the margin of the roads are numerous, the roadways unswept. One unlet shop, the property of Gunesh Lall, and a second, No. 3, the property of Jhornee, were seen to be full of filth. Bad smelling water was being sprinkled over the roadway at one place. In the Allahgunge bazaar mohulla, the centre saucer-drain was noticed to be useless, its sides being higher than the roadway, which requires to be filled up. Especially the southern extremity of Dal Mundee was noticed to be quite unswept and neglected.

The slaughter-place for bullocks, cows and buffaloes was seen to be an open, bad smelling place just behind the bazaar shops. Many of the public ways off the bazaar road are very narrow, and the important matter of ventilation appears to have received no attention at all.

74. The town is well drained by natural waterways which run down to the Ganges, but they require improvement and especially to be kept free from impurities. The drainage of the surfaces surrounding the wells was noticed to be neglected in several places.

75. There is a remarkably good serai, well situated on the southern border of the town, substantially built and well kept, with a fine large entrance gateway, now broken however, and to be taken down. The serai well is a very good one. The dispensary,—a rather important institution here,—was seen to be in good order in all respects, but its site is not sufficiently open, the houses of the town crowding too closely on three sides of it. The removal of the dispensary to an open site at the north-west outskirt of the town—which is in contemplation I believe—will, I think, be an advantageous change.

76. Futtehgurh is a town governed by municipal law: I do not know whether the Municipal Commissioners of Furruckabad exercise authority in Futtehgurh, but the Municipal revenue of Futtehgurh is joined to that of Furruckabad, to make one Fund, so that in all probability Futtehgurh is considered a part of the Furruckabad Municipality. If so, I think Futtehgurh might receive a somewhat larger share of attention. The existing conservancy establishment of one darogah-sufae and 20 public sweepers, is, I think, quite sufficient for Futtehgurh, but apparently these people neglect their duties.

77. The most urgent requirement of the Futtehgurh town, from a sanitary point of view, is the opening up of its most crowded part, by means of a road which should run from the neighbourhood of the public gardens to the Cawnpore road, somewhere near to the existing dispensary site. Once opened up, good conservancy would follow there as a matter of course;—hidden away, and crowded as it now is, this important part of the town, with its many shops and busy people, cannot be well managed or overlooked.

78. I should call attention to the Mortuary Statement of this town: for the past year the percentage ratio of deaths to population appears as 0·84, which accepted as the average for all years, would make the value of life, at Futtehgurh, 118 years.

KAIMGUNJ.

Population, 8,560.

Chowkeedaree averages, Rs. 133 per mensem.

Six public sweepers employed.

79. I inspected Kaimgunj on the 1st of December. It is a long, thin town of brick and mud houses intermixed, and consists principally of one wide street about a mile long, which runs from east to west. This street is called the bazaar. It is remarkably well made with kunkur, slightly arched in the centre, with shallow water ways on each side. To the west the road ends in a square marketplace, called Lindsay gunj, a square market entered by a wide gateway. Beyond that again there is a square, shady, fruit and vegetable market. Just before coming to the termination of the bazaar, to the west, a rather important nullah, called Khurowya nullah, is seen to cross the road beneath a widish culvert, the nullah ending in a large tank called Mookeem-ka-tal, a little to the northwards of the bazaar road.

80. The market places were noticed to be well kept in every way. The nullah and tank were, however, seen to be in a bad sanitary state. The nullah contained filthy water in small pools, and its banks were much broken and littered with impurities. The tank, which is close to the houses of the bazaar, is fully 200 yards square, and contained much water; it was said to receive all the rain-fall drainage of the north side of the town, besides that brought to it from the south by the nullah described. It has very irregular banks, much broken, and people take earth from it whenever they please.

81. The narrow roads which branch off from the well made bazaar road, although earth-made only, were noticed everywhere to be well arched, so that the centre was considerably higher than the sides.

The tehseeldar who accompanied me in my inspection, expressed the opinion that the people preferred the roads so made, to having them saucer-shaped, as is usual in towns. I have not the least doubt the making the roads in this way is a sanitary measure of considerable importance, and it adds considerably to the good appearance of a town. It can be done at little cost and is well worthy of imitation.

82. There are no underground drains in this town, and very few open drains from houses could be found; a very great amount of attention, certainly, is given to the matter of conservancy here, and I think this results from the efficient control exercised by the tehseeldar who resides there, and who informed me that,—in addition to the six Government sweepers—he had working under his orders, for the conservancy of the town, 18 other sweepers, paid by the householders.

To the east end of the bazaar street are the Tehseelee and Thannah, School-house, Dispensary and Moonsiffee.

The Tehseelee well situated, brick-built, well kept in every way, its publ ic office commodious and well ventilated. The School well built, the attendance good. The Dispensary well built and kept. But the Native Doctor in charge inhabits a small corner verandah room in it, which is not a fit place of residence for him. The Hawalat of the thannah is a room 15 feet square, with two grated windows in it, and a grated door, but no roof ventilation. Eleven men were found confined in it, and the air was very close.

Altogether, this eastern end of the town is an open pleasant place. Adjoining the tehseelee there is a public flower garden, and the precincts of all the buildings were seen to be well ordered, with one exception, behind the moonsiffee, where there is a shallow tank of which the people present complained as a nuisance.

83. I inspected the outskirts of the town on all sides, passing all round it. The peculiarities of the outskirts noticed were, that the cultivation of tobacco and potatoes extends up to the walls of the houses, so that no waste, filthy place could be found. No collection of impurities could be found anywhere, all such things being carefully used up for agricultural purposes, especially in the cultivation of potatoes which grow well here. The sweepings of the town are utilized in this way, and Kaimgunj may be said to stand a good deal in the midst of level land highly cultivated and manured.

The cultivation of the land quite close up to the houses has, I think, in some places hindered the outpouring of rain-fall from the town. Certainly the greatest part of the flowing rain-water finds its way into the great tank described, which is within the town limits.

From a sanitary point of view it is always desirable that the surplus rain-fall of a town should flow away from it as far as possible. But for the existence of the tank, which is counted as a valuable property by its Thakoor owners, the rain-fall at Kaimgunj might flow away to the Boodh Gunga river, distant little more than a mile from the town to the northward; as it is, rain-water, bearing the filth which lies scattered in Kaimgunj (as in every town), in great part collects in Kaimgunj, itself, for the sides of the tank are high and there is no visible outlet to it. It is by no means certain that this imperfect drainage system may not have been the reason why cholera, during the past year, was more prevalent at Kaimgunj than in any other part of the Furruckabad district.

84. The improvements from which the best results are likely to arise at Kaimgunj, are, the filling up of the shallow excavation behind the moonsiffee, the repairing of the arched earthen roads where they are broken: the removal of ruins in mohulla Durazkhan; and the bringing of the nullah and large tank, described, to a better sanitary state. The latter is a work of great importance. The removal of earth from or about the tank should be forbidden; an outlet should be provided on the north side; its banks should be made regular, holes existing in the bed of the tank being filled up with any surplus earth resulting. Lastly, the throwing of impurities, or sweepings, into or around the tank, the washing of men, animals, or clothes in it should be prevented. If all this is faithfully performed the tank, within a few years, will be so far filled up by deposit from its own waters, as to permit of the reclamation of great part of it.

SHUMSHABAD.

Inhabitants, 8,428.

Chokeedaree, 79 per mensem.

Three public sweepers employed at 2 rupees a month each.

85. I inspected Shumshabad on the 30th of November. It is a town of several scattered mohullahs divided by patches of cultivation. In most of these separate mohullahs there are large important houses, around which many mud structures cluster.

Shumshabad proper contains the palace-like house of the Nawab Sayud, husband of the Jaffree Begum, who with their servants and household appeared to be the principal people of the town, if not to exercise a considerable authority in it, perhaps as zemindars. Shumshabad, as a whole, stands on the bank of the Boodh Gunga; on the bank, raised into mounds and broken here and there by small ravines, which probably once bounded the Ganges itself, now 7 miles distant,—a very fertile khadir land intervening.

86. The Boodh Gunga appears as a depression in this khadir land, about a mile distant from the bank, and at the time of my visit to it, appeared as occasional small detached pools of water, the land between them cultivated.

The Boodh Gunga serves, however, very well as a natural rain-fall drain to Shumshabad, which occupies an advantagous site, evidencing a peopled place in the old days. Now it is mostly inhabited by Mahomedans who have built several fine brick houses there. It is not a place of any great importance, nor a seat of any manufacture, but still it is a fair sized town, with many houses, and to a casual visitor would seem fit to contribute a house tax of more than Rs. 79 a month, which is so small an amount as to leave no margin for expenditure on improvements.

87. The town contains a small square grain market, which to the south opens into a larger market place, shaded with fine tamarind and neem trees,—a well kept place in every way—busy, with many shops.

The bazaar, a longish street of old houses, is paved with brick which is much broken, several other roadways were noticed to be well paved with bricks, especially in the neighbourhood of the Nawab's house.

Several filthy cess pools and drains exist in different parts of the town, but especially —in Purdhunya Tola mohullah—a large open drain filled with impurities was noticed.

There are several large brick built houses in the town, and the shops are good of their kind. The narrow roadways off the bazaar street are, as a rule, unmade and in bad repair. To the west end of the bazaar street the brick pavement was noticed to be covered with a layer of earth about 8 inches thick, said to have been deposited by rain-water which stagnates there. An endeavour has been made to remedy this by means of a small cutting which runs towards the Boodh Gunga khadir, but the cutting now is too shallow and in bad repair. The drinking water of this town was said to be very good.

88. Some of the inhabitants of the town complained that water stagnates in it in many places during the rains, when the town becomes full of mud—very unpleasant and unwholesome. Many evidences of the truth of this statement were seen, and the most urgent sanitary requirement here is the remedying of this defect of drainage. There is no difficulty, I think, about doing this. The khadir land, several feet lower than the town at any part, is quite close. The deepening and proper preservation of the open cutting referred to would probably effect a great part of it at once. The natural water-ways should be sought out, obstructions removed from their course, and the remedy would be perfected. The better conservancy of this town also merits attention. An establishment of three ill paid public sweepers is not sufficient for the purpose. The Police, the only Government authority here, might be required to control this business more effectually, so that drains and cesspools, if they must exist, may be regularly cleansed; as it is, any conservancy which exists, appears to be restricted to the maintenance of cleanliness in the market place and bazaar street.

The less public roadways very much require repair, and, especially, holes in them should be filled up.

The brick pavement of the bazaar street has been so much neglected, or has suffered so much from the stagnation of water upon it, as to be now quite past all repairs, its renewal is very much required. But nothing at all of repairs or improvement can be done with advantage until the drainage of the town site has been rectified.

TUTHEEA.

Inhabitants, 7,382.
Chowkeedaree, Rs. 96 per mensem.
Four public sweepers at Rs. 2 each.

89. Tutheea includes Gunj Tutheea and old Tutheea to the east of it, separate towns, divided by a mile of cultivated country.

The former is the more modern and important town. I inspected it on the 12th of December. It is rather celebrated as the former place of residence of the rebel Thakoor Rajah Pokur Singh, who died at the Andamans two years ago. His fort, blown up after the mutiny, is now a heap of ruins on a high mound just outside the town.

90. Tutheea has suffered from the loss of its former patron, and I thought the people regretted his fate, certainly they treated his little son (who went with me to many parts of the town) with considerable respect. It is a quite open country town of mostly mud houses, and cultivation extends on all sides up to the houses. Its main road, and there is no other worthy of description, is unmade for great part of its length, —its surface saucer-shaped—so that in the rains it serves as a wide drain and becomes deep with mud. Last year, about 50 paces of its length were paved with brick, and this part contrasts greatly in comfort and cleanliness with the rest. Here too there is a great well, the water of which is in constant demand. It was said to have been built 50 years ago by a bunneea, but now was held as no man's property. It is 12 feet in diameter, the brickwork below is very good and strong, above it requires repairs. The steps leading up to the well raised platform surrounding the mouth of the well, are broken.

The main road to the east ends in an open market place, where market is held twice a week for the convenience of the country people around. At one side of the market place is a good temple, raised on a platform of brick, and here also there is a large well, famous for its sweet water.

Tutheea is also the general bullock mart for the whole south of the Furruckabad district, but the bullock market is held on an open, well shaded piece of ground outside the town, a very appropriate arrangement.

91. The main road and the market place were noticed to be remarkably clean, indeed, the town as a whole was seen to be fairly kept. It is well drained by means of a nullah which runs round the west side of the town to fall into the Esun nuddee. But its small lanes are mere unmade waterways, several unswept places were noticed and filthy cesspools. The north-west corner of the town was seen to be all ruined, it was said Aheers, who were printers of cloth, lived there formerly, but had migrated elsewhere. In Monya mohullah, at a place between two roads, a large collection of filthy sweepings was noticed, and here also are many ruined houses, indeed ruined mud houses characterize Tutheea in several places; it was said that, out of 22,000 houses composing the town, only 1,200 were inhabited, and earth of the best kind exists in abundance for the improvement of the roadways and the site of the town generally.

92. The serai here is a fair sized enclosure, with good rooms around it, and fine trees shade the courtyard. It was built 30 years ago by means of prison labour, 50 prisoners from Futtehgurh being employed for the purpose; now it is much ruined, its enclosure ill levelled and undrained, half the gate of its entrance way gone.

The serai is very much frequented by respectable people in the month of January, who are travellers to and from Mukunpore fair; a good well is much required in the serai, the existing well, a small kutcha one in a corner of the serai, being only a poor substitute for a well, and very likely to contain impure water at any time.

Many houses of Brahmins were seen to be well keeped; with this exception cleanliness in or about the houses seemed to be neglected.

In the Purao mohullah there is a fine well, built in the Rajah's time, and some other improvements of those times were pointed out, for in those days Tutheea was rather celebrated for its printed cloth-makers and merchants in cloth and salt. I think I have

written enough to show that it is a poor town now, and with the exception of the portion of paved bazaar road mentioned, I should say nothing has been done for its improvement since the mutiny year. There is no dispensary at Tutheea, and the season's vaccination had not commenced in the town at the date of my visit of inspection.

93. The School, attended by 30 boys, was seen assembled in a poor mud verandah place, 17 feet long by 6 feet broad.

94. No very filthy place could be found anywhere in the immediate precincts of the town, the people, both men and women, retiring to a considerable distance from the town for purposes of nature.

95. The works of improvement most likely to benefit the general health of the people at Tutheea, are,—the paving of the main road, or if that cannot be done, its arching with well rammed earth of good quality; the removal of ruins now not unfrequently used as receptacles for impurities; the repair of wells most frequently used.

The conservancy staff should be increased, and the police authorities be required to give increased attention to this matter.

If means can be provided, I think good results would flow from the improvement of the serai, especially as regards its water supply; and the schoolboys merit a better protection from the weather than they now enjoy.

ALLAHGUNJ.

Inhabitants, 6,246.
No Chokeedaree.
No public sweepers.

93. Allahgunj, a town across the Ganges, on the Bareilly road, appears in the Census Statement as a town of 6,246 inhabitants, as above stated, hence the cause of my visit to it. But close inspection will show that the Census compilers have been deceived as regards Allahgunj, which is a small town of 2,120 inhabitants only, and the total of 6,246 appears to have been arrived at by adding the sum of the inhabitants of all the villages, 17 in number, of the Allahgunj Talooqua, to the total for Allahgunj proper.

97. Here I should add that the same plan seems to have been pursued with reference to Bumeearee Amenabad, which appears in the Census report as a town in Furruckabad district of 7,096 inhabitants, but which is really an insignificant village at which I arrived with some difficulty,—to find that the town had no existence; the population recorded as belonging to it being the population of the 24 villages which are contained in the old Talooqua of the same name. I therefore omit to mention it again in this report.

98. Allahgunj, however, is a town, though of very little importance; a town of all mud houses, the houses set round an oblong market place containing three great trees; shops used to line the market place, but now they are ruined, because the imperial road to Bareilly passes just outside the town, and the shopkeepers have migrated to the road. A wide sota, 20 yards wide, passing down to the Ram Gunga, runs through the town, it water, now stagnant, was drying up, leaving banks and bed of brown mud. But for the trees standing on the different broken unmade roadways the aspect of the place would be very sad. There is not a brick-built well in the town, there is one good well in the public camping ground.

99. The construction of the imperial road has been a cause of great discomfort, and no doubt of ill-health, to the people of this town, because, when it was made, a sufficient waterway under it, for the nullah or sota described, was not provided: the old natural way was filled up, a large culvert being provided about 300 yards above the place where the old nullah crossed. The people complained bitterly of the result, saying the road so bunded up the water in the rains that it was waist deep in the town at flood times, and accounted for its present ruined state and broken ways; and I think, from what I saw, good grounds for the complaint exist.

100. A row of new shops and houses is gradually growing up along the course of the new road, and it seems likely the town will increase in that direction. A new halting place for bullock-carts, and a Serai, have been made there; bare places sadly in want of trees and the large hole in the middle of the serai enclosure is being very improperly filled up with sweepings.

101. The one great want of Allahgunj is a return to it at least of as perfect a state of drainage as it possessed before the great road was made. Until that is provided, the people who must live there will continue to suffer in health and property. Small-pox was very prevalent here last year, vaccination also was carefully practised in the last season, a vaccinator visiting the place for that purpose, and I gathered that the people valued his labours. Up to the date of my inspection no vaccination had been commenced there this season.

TALIGRAM.

Population, 6,104.

Chokeedaree averages, Rs. 42 per mensem.

Two public sweepers at Rs. 2 each per mensem.

102. I inspected Taligram on the 9th of December. It is a quiet country town surrounded by groves of trees; the land immediately surrounding the houses being in great part cultivated close up to them, and bearing crops of potatoes and tobacco. At the southern end of the town are many large brickbuilt houses of Brahmins and Kaieths, the remainder of the town is made up of mud houses. The bazaar,—a narrow, crooked, quiet unpaved street—, contains some 16 shops, principally of sweetmeat-sellers; the roadway of hard earth is well swept. All the remaining roads of the town are broken waterways which seem never to have been repaired, but they are rather wide, and the town seemed well ventilated; the roads also were noticed to be clean, having evidently been swept for my inspection, the cesspools also which are numerous had been hastily repaired and put in some order. In Brahmunpoorie mohullah two very filthy drains were noticed.

On the south side of the town there exists the raised site of an old brick fort, of which only the mosque now remains. The fort hill was noticed to be filthy in places.

In mohullah Gurhee, which consists mostly of mud houses out of repair or ruinous, a great manure heap was seen, of which residents complained as a nuisance near to their doors; some other large collections of filth existed in different parts of the town.

103. The outskirts of the town on all sides were noticed to contain filthy places; at the southern outskirt is a pond surrounded by trees, towards which a filthy drain, from a great house near, was seen to run.

At the northern outskirt, or suburb, is a second pond or water-hole, and near to the water a very filthy piece of ground, or perfectly open public latrine place, exists, where pigs were seen to be performing the work of scavengers, the ground all littered in turn by the pigs, for whom it was allowed no animal would act as scavenger.

104. My inspection notes of this town, from which the preceding paragraphs are abstracted, contain much more of the same tenor. It will, I think, be sufficient if I add that Taligram appeared as a town in which sanitary arrangements are ignored, and decency is little thought of. It stands in the midst of a pergunnah in which much sugarcane is grown, and many of the people are agriculturalists, parts of the town partaking of the character of an ordinary village, the inhabitants behaving as villagers.

I think, for a town of the importance of Taligram, this might be prevented, the people made to retire farther from the town, manure heaps be forbidden in the town, and an endeavour might be made to reclaim the water in the ponds to some state of purity, for now it is used by many people daily in a way which must lead to its becoming very impure.

The state of the roadways merits attention, for the condition of the town in the rains must be deplorable, not because the water will not run away,—the site of the town is sufficiently raised for that—but because of the numerous broken places in which water stagnates; also, I think, more than two ill-paid public sweepers should be provided.

CHIBRAMOW.

Inhabitants, 5,261.

One Jemadar sweeper at Rs. 4.

Four public sweepers employed at Rs. 2 each.

105. Chibramow is a town on the Great Trunk Road, which runs through it from east to west. It is made up of two towns, Mahomudgunj to the west, and Chibramow to the east, and of these Mahomudgunj is by far the most important, but the two towns touch, to form one.

106. The town of Mahomudgunj, which must formerly have been a large village only of mud houses, has been much improved by the making of the Great Trunk Road. Chibramow is accounted an important halting place for troops and travellers, and at the Mahomudgunj end, a good and busy bazaar about a quarter of a mile long, has sprung up on both sides along the road, which is the broad, well made, well known highway of this part of India. At the side of the road in the bazaar there is a very fine well. From this well a very filthy, neglected drain runs back into the town, and in the fine side drains of the great road much growth of rank grass was noticed, witnessing to the filthy state of the drain below. The serai opens on to the bazaar road, and is an important place much frequented by travellers. It consists of a large square enclosure, entered by a wide gateway, and surrounded by good sized rooms all of pukka brickwork. It is perhaps the best modern serai I have seen, and owes its existence, in its present form, to the energy of Mr. Lindsay, a former Collector, whose name and memory dwell with the people of the towns of this district.

I regretted to notice that the entrance way to the serai was filthy, neglected and unswept. The surface of the enclosure also was in a bad sanitary state, littered with heaps of broken bricks, and in two places, about the centre, evidences of filthy behaviour on the part of some inmates, were noticed. This was said to be due to the misbehaviour of travellers, who complained that no latrine had been provided for the serai people.

There is a beautiful well about the middle of the serai enclosure, but its surrounding platform was noticed to be filthy with mud and water, the cistern at its margin half full of blackmud, and a great heap of leaves and cattle manure was stacked against it. The enclosure everywhere was unpleasant from the smell of decomposing urine, for beyond the chabootras fronting the rooms, the travellers evidently used the enclosure as they would any waste piece of land.

Beyond the bazaar to the west, the land on each side of the Great Road is excavated into great water-holes. Further to the west is Lindsaygunj, a wide oblong market-place, with fine shops on each side, entered at each end by a gateway, one of which however has no gate. Shady trees stand in front of the shops on each side. Market is held here on Tuesdays and Saturdays, when many people assemble and grain is mostly sold. The roadway of this wide gunj is unmade, it is depressed in the centre and moreover broken into holes. There is a small, much used, public well in the gunj, the ground surrounding its mouth was seen to be neglected and filthy. On the side of the Great Road, opposite to the gunj, is the camping ground, a large open well-kept piece of land, shaded in places by trees, which however are wanting in many places. A European Lancer Regiment was encamped there at the time of my inspection. The camping ground was noticed to be naturally well drained.

The town on the north side of the road consists of a rather large collection of mud houses, separated by unmade lanes of broken surface; many filthy cesspools were seen at the sides of the roadways, and at the north-west outskirts, in a rather retired place quite close to the houses, there is a small collection of stagnant water, the ground all about which was so covered with human excrement as to make it difficult to walk there. On the south side of the road the houses are much less numerous.

The Tehseelee is well situated on the Great Road, a comparatively new building in very good order, but its courtyard at the back part has not been levelled, is much broken into holes, and unswept.

107. Chibramow proper is a quiet country town of mud houses, like a large village. It has a bazaar of its own of 10 shops, situated at some distance from the Great Road. There is an old ruined sĕrai here, and the site of the old tehseelee, now cultivated. The inhabitants are mostly Hindoos, and many Brahmins live here, all the roadways are unmade and much broken, no part of the site is drained, and irregular waterholes exist in several places. It was found to be fairly clean, and no very filthy places were seen. No attention seems to have been given here to the matter of public communication, many ways without thoroughfare existing. In short, it is a large village in which each principal resident apparently keeps his own part for himself and his people, and cares nothing for public convenience. Between Chibramow and the Great Trunk Road, at one place there is a large ruined dâk house, of which only the mud walls stand now; and near it, also on the road side, is the excavation from which the mud was probably taken, and which now is a filthy waterhole; I think it would be a great improvement if the mud walls could be thrown down, and the excavation filled up with the earth resulting.

108. The improvements likely to be of the greatest general benefit at Chibramow are required, however, principally at the Mahomudgunj end; a capacious latrine enclosure should certainly be supplied for the use of the travellers at the serai; the conservancy of the serai enclosure should be attended to. The roadway of Lindsaygunj should be repaired, its well carefully kept, and attention should be given to the efficient drainage of the gunj site, which is much required. I think trees might be planted with advantage at places in the camping ground, and certainly the conservancy of Mahomudgunj town should be attempted, the tehseeldar who resides there being asked to encourage the work.

CONDITION OF THE TOWNS OF THE ETAWAH DISTRICT.

109. The towns of the Etawah District, of more than 5,000 inhabitants, are three only, *viz*:—

	Inhabitants.
Etawah, ...	27,228
Phupoond, ...	6,749
Oreiya, ...	5,942

Of these, Etawah only possesses a municipal income and government.

ETAWAH.

Inhabitants, 27,228.

Municipal Income in 1868-69, Rs. 23,846.

Of this amount the following sums were expended in works of improvement, *viz*.:—

For building Hospital, ...	Rs.	1,000
„ making drains, ...	„	1,000
„ repairs to roads, ...	„	1,499
„ building gate, ...	„	1,113
„ „ well, ...	„	500
„ „ public latrines,	„	545

For Conservancy, ...	„	2,055
„ Repairs, Watering and Lighting,	„	1,547
„ Vaccination, ...	„	120
Total,	„	9,379

The percentages of expenditure stand thus :—

Works of improvement, ...	39·1
Police, ...	15·4
Collecting, ...	14·4
Refunds and contingencies, ...	9·9
Balance in hand, ...	21·2
	100·0

110. I inspected Etawah on the 21st December. It is a town of importance and the capital of a district, but cannot aspire to the title of city, and the population is, I should say, judged by its size and general appearance, correctly returned in the census statement. The town is built amongst ravines which run down to the Jumna river, and this irregularity of the site gives a picturesque appearance to the town in many places where the broad ravines contain houses and trees. The ravines all slope towards the Jumna, and for this reason Etawah is undoubtedly very perfectly drained from excessive rain-fall, everywhere. The main street of the town is a fine kunker roadway, furnished with saucer-drains, and lined by good shops, and is in every way a well kept, respectable public thoroughfare. But the great feature of the town is the large public square which contains the principal public buildings. Here the Tehseelee, School, Dispensary, Kotwallee, Moonsiffee, and Humegunj (a large market place) centre. The square itself is well kept, and ornamented by grass and aloe plants, banyan, peepul, and neem trees. The buildings mentioned all possess considerable architectural merit, they are divided by good kunker roadways, and there is ample space on all sides. Certainly I have not seen anything in any town of this province which can compare with this square and its precincts as a well planned effort at improvement successfully completed during comparatively modern times. The town owes the existence of this square, in its present form, to Mr. Hume, the former Collector, whose name seems to be as well known in this district as that of Lindsay in Furruckabad.

Besides the main bazar road, there are the Ramgunj bazaar and Sukeazudun bazaar, both well kept kunker roadways, properly drained. The narrow byways of the town were seen to be in very good order, and cesspools are uncommon.

Undoubtedly the conservancy of this town is very carefully performed, and no filthy places or collections of impurities could be seen to exist, cleanliness prevailing everywhere in public places; this creditable state of things being due in great part to the efficient control exercised by Doctor Sherlock, the Civil Surgeon, who, very properly, I think, interests himself in this matter. Fourteen places are marked off within the town limits, where sweepings may be thrown, and a sufficient establishment is provided for the daily removal of the waste, thus collected, to the brick-fields outside the city.

Nine public latrines are in existence here. They are all on the outskirts of the town, and consist of small enclosures with open cells for women, and small enclosures with cells, in passages, for men. The impurities collected from the latrines is buried in their neighbourhood every day.

The drinking water at Etawah is good everywhere. It is drawn from an average depth of 70 feet, and there are many good wells in the town.

An outskirt of the town to the east is called New Etawah. It appeared, however, to be as old as any other part of the town, if not older. It has much the appearance of a mud-built village. Its main street might be improved with advantage.

111. In a long morning's inspection of this town, of which I saw all parts, only at two places could I notice anything which seemed urgently to require improvement.

First,—in a serai near Humegunj, the great market, with its large arched shops of fine brickwork, well arched kunker roadway, and well growing young trees. This serai is much frequented, and consists of rather poor huts, which surround a square tomb set in the centre of the enclosure; a remarkably fine well adjoins the tomb, and the serai is entered by a grand gateway, resembling a triumphal arch; near the tomb, and around the well, a great heap of rubbish was noticed, apparently serai sweepings of many days, which very much required removal.

Second,—and much more serious as a nuisance and cause of ill-health of Etawah, between the new jail and the town, and quite near to the jail, a large excavation adjoining a brick-kiln exists. The excavation presented a large surface of stagnant water and mud, giving a desolate and unwholesome appearance to that part of the town site, and it must influence the state of health of the inhabitants of the town, civil station and jail, for it is not far from any of those places. It was said to have originated, in greatest part, from the manufacture of bricks there for the construction of the new railway station. The reclamation of this excavation would be a work of great public benefit, and I think the levelling of the brick-kiln, which is very large, would provide material enough, at any rate, to fashion the place into a square tank, around which trees might be planted; but if in any way the excavation could be filled up altogether and the resulting site laid out with grass and trees, the result would be more favourable from a sanitary point of view.

112. Concerning the public latrines of this town, which are not, I should think from their appearance, frequented by any large number of people, I should like to say that experience is teaching me that small latrine enclosures are not acceptable to the people of this Province, who find comfort from open space and much air in their places of retirement; and I would recommend to the favourable consideration of the Etawah Municipal authorities, a trial of the plan of plantation latrines,—that is, latrines taking the form of fair sized plantations of surput, or other high grass in clumps, surrounded by a wall only high enough to well mark its boundary. If the open ground between the clumps is properly cared for by sweepers, if the people are allowed to choose any place they please to sit down over, and are not interfered with in any way, many will thankfully frequent those places. The roots of the grass, which pierce the soil in all directions, will best remove fluid impurities, the grass will flourish, and may become a source of income.

113. Lastly, I wish to record the attention given by Mr. Low, who accompanied me at my inspection, to the management and improvement of this town, an attention, it was apparent to me, springing out of an earnest desire to benefit the inhabitants.

PHUPOOND.

Inhabitants, 6,749.

Chokeedaree averages, Rs. 110 per mensem.

Four public sweepers employed at Rs. 3 each.

114. I inspected Phupoond on the 16th of December. It is a town of considerable importance and contains many good brick-built houses. The site of the town is considerably raised, and around it are several large water-holes, containing much water said to be poured into them from the Ganges Canal. All the roadways of the town are unmade, with depressed surfaces, much broken in places and full of dust. The drinking water of the town was praised by the people. The town is undrained, excepting in as far as its naturally raised site conduces to efficient drainage.

The Bazaar was noticed as a rather busy street of fair shops, the roadway widish but unmade, and much broken into holes; the smaller ways mere waterways, apparently

never mended for years past; several ruined houses of the poorer sort, in all parts of the town, were seen to be used as receptacles for sweepings. It was noticed that a much used burial ground existed at the back of the line of houses forming the bazaar street on one side. Filthy cesspools at the road sides exist, but are not so common as in some towns I have inspected.

Humegunj, the market place, was seen to be pretty full of people, it being market day. It is a well kept open square, planted with trees which, from neglect, are not thriving well. Two open filthy drains in the gunj and its neighbourhood, require attention. The serai consists of a rather large enclosure, shaded by trees, the surrounding huts ruinous, the well, a very fine one, broken above; and a smaller separate part better kept.

At the west end of the bazaar street, on the north side, a very filthy place was noticed, and this part of the town is much neglected. A butchers' quarter exists here; bones and other decaying animal matters were seen to be rather common near to a filthy tank in which it was complained the butchers washed the intestines of the animals killed: there is a part of high broken ground which is a large open public privy. Dhanooks reside near who keep pigs, and the pigs act as scavengers. This part is called Motee-poor mohullah, and take it altogether, I have never seen a place more abominable in any town.

The Tehseelee stands on the highest spot in the town. It is a new building, just finished; already the neglect of conservancy which characterizes the town is apparent at the tehseelee. The latrine belonging to it was seen to be very filthy, the out-houses unswept and littered with uncared for impurities.

The Lock-up there was seen to be a close cell, nine feet square, closed by a solid door, and having no opening of any kind for ventilation. It contained one prisoner, and the air in it was bad smelling. The native authorities present thought that several men might be locked up in it, at one time, without harm. At the back of the tehseelee, and also on the high ground, there is the tomb of Goolgullah Peer, a centre of attraction of considerable local interest, at which both Hindoos and Mahomedans pray.

115. Five years ago a fine pukka school-house was built here, on a raised site. The site appeared to be the remains of some great mud structure of old times. Foundations 18 feet deep, and rammed earth below, and brickbats above, were prepared. The new building, heavy with arched pukka roof, soon fell down, and lies all broken to pieces. The school is now held in what was formerly the old Moonsiffee, a mud structure of small close rooms, in a crowded part of the town; a place very ill suited for the purpose, and more especially as the school was seen to be well attended,—the schoolmaster earnest in his work.

116. Both on the east and west sides of this town, and quite close to the town, Indigo factories exist here. The people and authorities complained that in the months of July and August these factories were an intolerable nuisance and cause of ill health, especially as the waste water from them is run into a large water-hole near to the houses of the town.

Just outside the town, to the west, the tomb of another celebrated Peer, or Mahomedan saint, exists; a fair is held at this tomb in January, and an average of 10,000 people assemble. Just outside the town, to the east, is a high mound on which are the ruins of an old Hindoo fort.

117. Altogether I think there can be no doubt that Phupoond is a very old town, its present raised site being due, in great part, probably to the accumulated ruins of centuries; certainly it is a town of some repute in the Etawah district. The railway passes it at about six miles distance, and I understood that the business of Phupoond had increased since the railway was opened. A good road connects the town with the station, and this old neglected place may possibly have a brighter future before it.

118. I have, I trust, written enough to show that improvement is urgently demanded in this town. Especially, I think, the burial of the dead amongst the living should be discontinued—the nuisance of Indigo factories abated. Butchers, who were said to slaughter animals in every part of the town, should be made to do this outside at one fixed place. The townspeople should be required to retire beyond the town precincts, so that places like Moteepore mohulla might be reclaimed to purity. The roadways should be repaired; impurities be carried out to the fields to be utilized in agriculture; ruins repaired or removed.

For a town of the size of Phupoond, I think a conservancy staff of four sweepers cannot be sufficient; always the excuse was made, of want of means, when any unusually neglected place appeared. Perhaps, with more labour at command, the local authorities may take heart to control the important matter of conservancy with more earnest endeavour.

OREIYA.

Inhabitants, 5,942.

Chowkeedaree, Rs. 133.

Four public sweepers at Rs. 3 each.

119. I inspected Oreiya on the 17th December. It has the look of a prosperous, busy place, and is a town through which a considerable trade from the Jhansie division to the railroad passes. The site of the town is remarkably level, so that it does not appear to be anywhere much above the general level of the surrounding country. Oreiya is undergoing a change of circumstances, and I think that when next the census of the town is taken, its inhabitants will be found to have increased considerably. The town itself, too, is changing.

120. The kunker high road from the Jhansie direction passes a little to the outside; on the east side a new Tehseelee of fine brickwork, and all gothic arches inside, has been built on this road, and branching off opposite to the Tehseelee is a wide kunkur road at right angles to the first, and leading down to the new market place called Humegunj. Along the new road, which thus connects the tehseelee and gunj, lines of good shops are to be constructed, the land having been provided for the purpose. Thus quite an important east end will grow up to the town, which, as it now is, consists of a mass of some 200 pukka houses, around which mud houses are everywhere pretty closely packed,—the houses divided by unmade roadways and narrow lanes, all depressed, broken, and full of dust. Humegunj stands in the part of the town on the east side, facing the new tehseelee, and is the principal place in the town, consisting of a large, well kept square, with central kunkur roadway and good shops of pukka kutcha masonry at the sides. Trees have been planted, and are well cared for, and this gunj is the place where the principal business of the town is carried on. It contains a remarkably fine well, perfect in every way, and said to be 100 years old; the water, 80 feet from the surface, was much praised, and seemed to be in much request. There are many large wells in this town,—the chowdree of the gunj said 50,—and the water is good everywhere in the well constructed wells.

121. The town spreads in a widish circle behind the gunj. It is surrounded by water-holes on all sides; on the north side there is a wide expanse of water, called the Jheel. Many bad smelling open drains and cesspools were seen in different parts of the town, especially in Bayha Tolah mohullah, which is an important quarter. In Naujehar mohulla a large dust and manure heap was much complained of, it is situated amongst the houses, and ought not to be permitted. In the old market place there is a very noted temple of fine stonework, and near to it a well, much used, the site around it undrained and filthy, with stagnant water in a bad smelling pool.

The Sweetmeat Bazaar was seen to have a very narrow, much broken roadway. Sookhun Tolah, a wide open roadway with fine houses on both sides, and a great well in the centre of the roadway, was seen to have several open, filthy drains, and cesspools in it.

The matter of conservancy is much neglected here also, the people frequent open places in the outskirts, and pigs are employed as scavangers. But the great want, in a sanitary point of view, of Oreiya, is drainage of its site; for the people complained, and I have no doubt, truly, that after heavy rain, no carts could move in the town anywhere for several days on account of the mud.

The Serai, a much frequented place, towards which a new kunkur road is being made, houses being removed, and the town opened up in that direction for the roadway, is situated at the south-east corner of the town, and consists of a large enclosure shaded by neem trees. It was noticed to be well swept, but the surface of the enclosure is broken and uneven, the drainage deficient. It is an old serai of importance, and contains a fine well and a small mosque. The well is shaded by a tamarind tree, so that many leaves must fall into it; its drainage tank was noticed to be filthy. In places, heaps of refuse were seen, which the bhutearas endeavoured to hide by placing bedsteads over them.

122. It will be seen that, next to the matter of drainage, Oreiya requires improved conservancy. Plantation latrines, as recommended for Etawah, might be tried here; certainly the people should be required to retire to places farther away from the town, so that the pigs which, if any thing, leave a worse filth behind them than first exists, may also have to go farther off. But I think the deliberate feeding of pigs, in this way, an abominable practice which should be discouraged now, and forbidden altogether where latrine accommodation can be furnished.

The Serai merits improvement. Its well-water should be preserved from falling leaves, and possible contamination from impurities around the well.

CONDITION OF THE TOWNS OF THE MYNPOORIE DISTRICT.

123. The towns of the Mynpoorie District are:—

	Inhabitants.
Mynpoorie, ...	21,179
Sheikoabad, ...	9,496
Bhowgong, ...	6,231
Kurhul, ...	6,061

Of these only Mynpoorie possesses a municipal government.

MYNPOORIE.

124. Municipal revenue in 1868-69, ... Rs. 15,890.

Expended in works of improvement, *viz*:—

Conservancy, ...	1,743
Building latrines, ...	1,507
Lighting and watering, ...	1,299
Building rest-house, ...	300
Repairs of roads, wells, &c., ...	125
Vaccinator, ...	180
Total, Rs.	5,154

The percentages of expenditure stand thus:—

Works of improvement, ...	32·4
Police and Police chowkees, ...	34·4
Collecting and establishment, ...	22·7
Refunds and miscellaneous, ...	5·6
Balance in hand, ...	4·9
	100·0

125. I inspected Mynpoorie on the 1st of January. It stands on the margin of the rather wide khadir of the Eesun Nuddee, which divides it from the civil station of the same name, so that between the civil station and the town, about half a mile in width of low land intervenes, in the midst of which the Nuddee, which is crossed by a good bridge, courses. The station and the town, both, however, occupy sites raised above the khadir land, being, in fact, on opposite banks of it. The roads between the two are raised by earth-works, properly furnished with culverts, and undoubtedly the Eesun serves as a very efficient drainage channel to both sites; at the same time I have no doubt that, in the rainy season, so wide an expanse of damp land, as the khadir presents, must be a cause of fever disease.

Between the station and the Eesun there are lines and groves of trees, and between the city and the Eesun groves and trees exist in many places, also the houses of the town do not commence except at a considerable distance from the khadir land. Altogether I think Mynpoorie very favourably situated as regards its perfect drainage, which is greatly helped by the existence of a nullah which runs down to the Eesun between Mynpoorie and Maukumgunj, which together form the modern town of Mynpoorie.

126. The town is pierced from east to west by the well made highway, which joins the Great Trunk Road at Bhowgaon, to the railroad at Sheikoabad; and from north to south by a well raised kunkur roadway, which runs through the heart of the town from the Gunesh to the Muddar gate, these roads forming a broad thoroughfare in the shape of a cross, and helping very much to the good ventilation of the town.

The first named is the principal roadway, and is lined with good shops, being the principal bazaar of the place,—a busy street, remarkably well kept in every way, properly drained on each side, and a good deal of trading appeared to be done here, especially in tarkushee or woodwork inlaid with brass, for which Mynpoorie is celebrated.

127. At the eastern end of this roadway are the principal modern buildings of the town,—a really imposing Tehseelee and Thannah in one building,—Raikesgunj, a large market place, entered by a very handsome saracenic gateway, surrounded inside by well built houses with round arches. Its enclosure, shaded by good trees, was carefully levelled lately under the immediate direction of Dr. Tyler, the Civil Surgeon, who has interested himself very much in this and kindred works of improvement in the town. There is a very fine, carefully kept well in this gunj, which contained 15 feet in depth of water, the water standing only 14 feet from the surface. It was explained that the water had permanently risen in the well since the Ganges Canal was made and the country near to Mynpoorie had been irrigated from it. The large, shallow, well made drain, which surrounds the enclosure, was seen to be filthy.

Maharajgunj, a second market place, also an enclosure with a fine well and three good trees, but otherwise very different to Raikesgunj. Here the enclosure is depressed in the centre, the surrounding shops are ruinous mud huts, with broken tiled roofs, the well surrounded by much filthy mud.

Farthest of all to the east, and just outside the town, is the Dispensary, a good sized permanent structure of neat appearance, its precincts carefully kept, the front attractive with an ornamented wall, the enclosure laid out with grass and shrubs. The latrine of this institution is worthy of imitation, being furnished with a well made asphalt floor upon which the arrangements necessitated by dry earth conservancy can be efficiently carried out.

The flooring of the wards is a surface of kunkur knobs which, although very wholesome, might with propriety, I thought, be made more comfortable for naked feet,

128. The Mynpoorie town, which stands mostly on the north side of the great road to Sheikoabad, contains many brick houses, divided by narrow unmade ways, but everywhere I noticed a very commendable condition of cleanliness; cesspools and open drains are very few, but several square tank-like places, apparently intended for the reception of refuse, were seen to be filthy, from neglect to remove the impurities collected.

The Maukumgunj town, mostly on the south side of the road, is a suburb where mud-built houses are very common, and this part is less cared for; the roadways are much broken, and at the south-east outskirt there is a wide, shallow ill-kept drain called Chumrodah nullah; round the east and south sides, too, there are several water-holes, or kutcha talaos, which are imperfectly connected by badly cut drains, with the view, apparently, of draining the whole towards the Eesun, sufficiently to prevent flooding of the town in times of great rain. I think this system of drainage should be perfected, and the Chumrodah at the same time improved, so that it cannot become filthy in places with stagnant sewage, as I saw it.

129. In Mynpoorie there are two fine Jain temples, and the Rajah of Mynpoorie, a member of the most honoured Thakoor family in India, resides here in an old picturesque fort, and altogether Mynpoorie may be considered a town of considerable importance, which has a tendency to improve.

130. The outskirts of the town were seen to be decently kept. This is due, undoubtedly, to the establishment of public latrines at this place on a considerable scale. There are 13 of these institutions, consisting of plain enclosures for women, and enclosures with cells for men. They stand on the outskirts of the town on all sides; some of them which border on important parts of the town, are large and remarkably well built of brick and lime, others are of a less permanent nature, but all I saw were commodious places, admirably placed, and frequented by many people; not that I think it likely the majority of the people who go out of the town frequent them as yet, but their creation has resulted in obliging all who will not use them to retire to a considerable distance from the town, with a resulting cleanliness of the outskirts, which is a very great gain indeed, from a sanitary point of view. The impurities collected from the latrines are buried in small quantities together in open ground near to them. The erection of these latrines and their comparatively successful management reflect, I think, much credit on Dr. Tyler, to whose industry they are in great part due.

I noticed that the places where these impurities had been buried appeared to have been disturbed, as if for the removal of the contents after decomposition for use as manure. I think it would be preferable, in every way, to bury the impurities, in the first instance, in shallow trenches on land to be afterwards cultivated, the filled trenches being in no way disturbed excepting by the plough as it passes over them.

SHEIKOABAD.

Inhabitants, 9,496.

Chowkeedaree, Rs. 130 per mensem.

Eight public sweepers, at Rs. 1-8 each per mensem.

131. I inspected Sheikoabad, which the inhabitants more often call Mahomudabad, on the 29th December. It is a town on the railroad, and the place to which the traffic from the Mynpoorie and Etah Districts greatly concentrates, to reach the railway. Good kunkur roads converge from both district towns to the railway station at Sheikoabad.

The kunkur road to Mynpoorie skirts the town which lies to the south and east of it. But the principal bazaar of the place lines the road itself on both sides, and there are not less than nine serais on this road at different places in the town, for Sheikoabad stands on the old line of traffic between Lucknow and Agra, and would appear to have been much frequented by travellers for a long time past.

It is a town whose inhabitants are chiefly Mahomedans, many small mosques exist, and one rather famous old mosque, just rebuilt by subscription. The old town is a large straggling place, its roadways all broken waterways, its bazaar irregular in shape, the site broken into holes in many places; there is a fine well in the middle of this bazaar, but the water it contains is brackish from saltpetre. Large heaps of mud and refuse of old standing were noticed about the middle of the bazaar. The new mosque stands at the end of the bazaar, beyond it is an extensive oblong market place where market is held every fourth day, young trees are planted around, but the site of the market place is much broken into holes. It was said to belong to a zemindar, who gave the site of the new tehseelee, to be mentioned hereafter, for it; beyond the market place is the low fort hill, now built over with many houses, formerly the site of a fort which dominated the town, and where Sultan Allee Khan, a well remembered ruler and benefactor of the town, lived in days gone by. Many ruined houses of Mahomedans exist here, and filthy privies in courtyards of houses are numerous, some good houses of Hindoo merchants exist at a triangular-shaped part of the bazaar. The bazaar roadway is somewhat raised in places, but quite unmade; at one place a very filthy private latrine of a great house near, was seen, its contents exposed to the view of all passers by. A great hole, full of mud and water, existed at another place; at a third, a ruined house, full of refuse, one corner in use as a public retiring place. The owner of this ruin was said to live at Ferozabad. A considerable trade in cotton was being transacted in some of the shops at the time of my visit.

An old deserted serai exists near to this bazaar, it is now used as a place into which rubbish and refuse of all kinds may be thrown. A banian tree, which stands in front of the serai, testifies to the existence, once, of a time when this serai was more honoured.

The new bazaar of the Mynpoorie road is a more creditable place. Its roadway, the wide imperial road, is, of course, of the best description, admirably kept in every way, and modern Sheikoabad has concentrated itself a good deal on this road. The shops are good and business seemed pretty brisk here.

132. Just off the road, on the north side in the bazaar, there is a fine well from which it was said half the inhabitants of the town, at least, took their drinking water, because the water in many wells here is brackish, the water of this well being sweet. I noticed an extraordinary amount of filth about this well, and along the drain at the side of the road near it, upon which a plague of flies, it seemed in millions, were settled; the broad line of filthy mud and water extended fully 150 yards down a by-street of the town, on the north side.

The largest serai, entered from the main road, consists of a large enclosure, well shaded with trees, and surrounded by mud houses, a mosque standing in the centre. The courtyard is so hollowed in the centre, and undrained, as to be all mud and water, even after the comparatively short rain here of the 24th of December; after heavy rain the water was said to lie knee deep for many days. At the back of the mosque a great heap of refuse was collected. The same condition of want of drainage was noticed in the other serais, so that I could with difficulty walk in any of them; but this miserable condition was much aggravated in the case of the great serai, by the fact that a drainage culvert, beneath the roadway, opened opposite its entrance gateway, and served to pour a stream of water into the serai; apparently a very unjust arrangement, of which the people, who owned the property there, complained bitterly.

133. Want of drainage is the great fault of Sheikoabad as the site for a town. With the exception of the rising ground of the old fort hillock the site is remarkably level. To remedy this, in part, about 150 years ago the Governor, Sooltan Allee Khan, dug a great tank, which now exists, at some little distance off the great road on the north side of the town. It is square, of considerable extent and depth, its sides walled

by good plain brickwork, still in fair repair; and the builder's tomb, lighted every night with oil contributed by surrounding cultivators, stands at its margin. This tank is the place towards which drainage should be directed on the north side of the town.

The drainage of all the site to the south of the Mynpoorie road should be directed towards the Sirsa nuddee which runs outside the town at its southern aspect. But in truth I fear little has been done here for years past to improve the important drainage channels, or to open smaller channels into them, so that in many places away from the great roads, as I had opportunity to see, the people suffer much inconvenience after heavy rain.

134. The Government School-house at Sheikoabad is strongly built, after the plan of a double shed, with centre wall, so that the two rooms of which it consists cannot be sufficiently well ventilated to properly accommodate 82 boys, the number attending the school. Its site is open, but nothing has been done to improve its precincts. It is placed too near to the great road, the bustle and noise of which attract attention.

The Tehseelee, a new, well built place of good masonry, is at the west end of the town, on the Mynpoorie road, it was noticed to be well kept in every way. The Thannah, also a well kept place, its courtyard shaded by a fine neem tree, adjoins the tehseelee. The Police Lock-up is a masonry room 12 feet long by nine broad, insufficiently ventilated by a small grated window and a small hole in the roof, the door being solid. It contained one prisoner; urine was seen on the floor, which the prisoner accounted for by saying, that no vessel being supplied he was obliged to soil the floor.

135. This Report will show that much requires to be done to bring this town to a good sanitary state. The direction in which practical efforts at improvement may best be made, are sufficiently apparent, without further especial remark.

BHOWGAON.

Population, 6,231.

Chowkeedaree, Rs. 88 per mensem.

Four public sweepers, at Rs. 1-8 each per mensem.

136. Bhowgaon stands on the Great Trunk Road where the Mynpoorie and Futtehgurh roads join it. The Great Trunk Road passes through the town from east to west, forming a wide centreway, with shops on each side of it, the principal bazaar of the place. This centreway is well kept, of course, but the drainage channels on each side have been made too deep, and for this reason their cleanliness is neglected. The town is long and narrow, the houses clustering on each side of the great road, where there is a long line of shops on each side, and all the business and life of the town seemed to be centred on this road. The houses, however, are much more numerous on the north than the south side of the road. The principal public buildings of the place also stand on the roadside at the west end of the town.

Commencing at this end of the town, the first place of public resort is the Serai, a good sized enclosure, a little off the road, fairly kept, its enclosure shaded by good trees but hollow in the centre; its well is good but has no parapet, so that impure water must often find its way into the well.

The Thakoordwara, the property of Dwarka Doss of Furruckabad, a well built pukka structure, stands near the Serai. It has verandah rooms, free to poor travellers, and 30 seers of grain is given away daily, here, by the owner. Facing this travellers' house there is a large, much neglected excavation, with much injured trees standing in places on its banks which are all broken and irregular, but would seem at one time to have been more cared for.

Between the excavation and the great road, is the new Thannah in course of construction, but sufficiently completed to show that it has been remarkably well planned and will

be well built. The Lock-up was seen to be a well ventilated room. This Thannah, the plan of which was said to have come from the Inspector-General of Police Office, is well worthy of imitation, as a strong, good looking, commodious, well ventilated building well suited for its intended purpose.

The Tehseelee is a large delapidated fort-like structure on the road side, opposite to the Thannah. Its high mud walls presented a ruinous appearance outside, and inside broken sheds around a broken centre house, and occasional collections of rubbish and refuse in places, make it a very undesirable place of residence and business for the principal native official of the pergunnah, so that it was pleasant news to hear that a new Tehseel is in contemplation for this place.

The School-house stands on the same side of the road as the Tehseel, and between the two is the purao or public halting ground for bullock carts, which was noticed to be an open piece of land of considerable size and very much neglected, so that for want of drainage, pools of filthy water lay in places; for want of shady trees, bullocks and men lay in the sun; for want of sweeping, filth lay everywhere on it; the well there at which many cattle drink was surrounded by black mud, and its drainage tank was represented by a small pool of fœtid water. This piece of land merits improvement, as much for the sake of the people and animals who use it, as out of respect for its boundaries—the Great Trunk Road, the Tehseelee and the School. The School-house, however, sadly wants repairs, it is mud built, the unseasoned timber of its roof has sagged, and the roof leaks; nothing has been done to improve its courtyard, and it is altogether a miserable place, so that I think a new School-house is as desirable here as new Tehseelee. Behind the School-house the land sinks down to form an extensive jheel, which extends in good part all along and behind the southern outskirt of the town. This jheel is a very serious feature in the topography of Bhowgaon. East of the School-house the town proper commences with its long bazaar.

137. The site of the town is a good deal broken in places, so that the narrow roadways rise and fall; about the centre of the town is a rather well kept mound on which a new mosque is now being built, the narrow roadways everywhere are mere waterways. The town contains a Mahomedan, especially Pathan, quarter, noticeable for its high enclosure walls and deep narrow lanes. In this quarter some appearance of prosperity, if not importance, of former owners appears, but all is now fast going to ruin, the houses delapidated, the roadways broken. In this quarter two great manure heaps were seen in open places amongst the houses—disgusting heaps, unpleasantly perceptible for some distance.

138. The Hindoo quarter was noticeable for its mud, and narrow unmade ways, with many holes and much dust. Heaps of refuse were seen here too, and it seems pretty certain such of the inhabitants as are cultivators store manure in the town.

The east end of the town is a neglected part, and ruined houses are frequent there, and altogether the town anywhere off the Great Trunk Road contains little to raise it above the condition of an ordinary village.

The bazaar of the town in the old times contains a few quiet shops, and its roadway is depressed, undrained and unmade, and it must be a miserable place in the rains.

139. At Bhowgaon the water in the wells stands at an average depth of only 14 feet from the surface; this is not due in any way to canal irrigation, which does not extend to the Bhowgaon side of the Eesun Nuddee, but to the situation of the town on land naturally lower than the surrounding country, and which at the southern aspect of the town is sufficiently depressed to give origin to an extensive jheel, where a large surface of shallow water exists for many months of the year.

140. The people of this town complained that fever was very prevalent amongst them in and after the rainy season. There is no Dispensary here, and the officials complained of that as a much-required institution.

141. The improvements most necessary for this town are :—

The removal of refuse heaps to places outside the town precincts; the improvement of the tank behind the new thannah, and of other small water-holes in the same neighbourhood; the improvement, by levelling, draining, and planting trees, of the public purao; the drainage of the jheel to the south. The last is the most important work, from a sanitary point of view, for it is likely that the prevalence of fever disease here is due to the existence of the jheel. The whole town site, where not interfered with by excavations, drains towards this jheel, which, in turn, when full to overflowing, drains by means of a nullah to the Eesun nuddee, three miles south of the town. The communication of the jheel with this natural waterway should be improved, obstructions to the flow of water there, or in the nullah anywhere, should be removed, and their reconstruction forbidden. In dealing practically with a matter of this sort it has to be remembered that wherever a jheel exists, certain persons near are interested in maintaining it, and if possible increasing it, for the sake of gain from the crops which grow well only in or around it. But where the jheel is likely to be a cause of ill health to many people, I think these persons may be justly expected to put no hinderance in the way of its improvement.

KURHUL.

Inhabitants, 6,061.

Chowkeedaree, Rs. 79 per mensem.

Two public sweepers employed at Re. 1-8 each.

142. Kurhul is a town of some importance, inhabited mostly by Hindoos, and presented a rather prosperous appearance. I inspected it on the 23rd of December.

The kunkur road from Etawah to Mynpoorie skirts the town on the east side. The principal street and bazaar of the town opens off this road, at right angles to it. This bazaar is a widish winding road. The shops poor and shaded with broken chuppers, the roadway unmade, depressed, full of dust some inches thick in places, and must be full of mud in wet weather.

Trade in cotton, indigo, grain and ghee is carried on here. The principal inhabitants are apparently prospering, and there are more bunneas than zemindars. These prosperous inhabitants live in brick houses, of which some are fine. Nowhere in the town is there any made roadway, and all the narrow ways are depressed waterways which serve as imperfect drains in the rainy season, but nowhere could any special arrangements for drainage be seen.

143. The town itself was noticed to be clean, but the outskirts were filthy, and especially on the north side where the ruins of an old saltpetre factory were seen to be in use as a public latrine, pigs being used as scavengers.

144. The drinking water of this town was said to be good, and several good wells were seen, the water standing in them about 24 feet from the surface.

The serai is an enclosure with two gateways; it was noticed to be cleanly kept and its courtyard is well shaded by fine trees, but houses are scattered in the middle, where there is also a well raised mosque and a large old well.

A new thannah is being built here on a good site; near it there is a fine public well, built at the expense of a prostitute, who has recently added a new drainage tank to it.

145. The kunkur highway where it passes the town runs between two great water-holes, the results of extensive brick making, as old brick kilns there testify. The water-hole nearest the town is quite close to the houses, and its banks, about five feet high all round were seen to be very filthy with refuse of all kinds, and also to be in use as a public latrine.

The inhabitants complained that the site of the town and its suburbs drained towards these large excavations, and that, in the rainy season, at times the high-road and the town were flooded with water, as the excavations became full to overflowing, and

to this, and the general flooding of the land east of the town, they attributed the unusual prevalence of fever disease, which troubles them in the months of September and October of most years. Enquiring concerning this matter, I found amongst the children near at hand one with enlarged spleen, and was assured that enlargement of that organ, although not very common, was well enough known here.

146. This flooding is due, in great part, to the existence of the kurhul Rajbaha of the Ganges Canal which runs round the town site to the east and south, and throws off an escape, passing north of the town to reach the Seyngur Nuddee, so that the town with its surrounding land is hemmed by canal works, which have raised banks, and the nuddee about a mile west of the town. I think the best remedy for this serious sanitary evil would be the providing of a drainage channel (which shall not have raised banks) from the excavations of the east side of the town to the Seyngur Nuddee, and it seems not improbable that careful survey may discover a natural waterway which by improvement might serve this purpose. Until this drainage of the site is provided for, nothing of improvement as concerns the roadways of the bazaar or town generally can be expected of the residents, for whatever may be done in that direction now, will infallibly be ruined by the next flood. The fear of flooding being removed, I think the entrance to the bazaar from the highway might be opened out, the roadway of the bazaar made and drained, and the other ways improved, with great advantage to the health of the people.

The serai which is much frequented would be greatly improved, as a place of resort for travellers, if its courtyard could be cleared of its centre huts, so that the air of the place may be made purer and more plentiful. The outskirts of the town require attention. People should be obliged to retire to a greater distance from the habitations; refuse should be carried out to the fields. Attention to these and other matters of improved conservancy, for the due performance of which well paid public sweepers are required, might well be required of the Tehseeldar, who resides here.

CONDITION OF THE TOWNS OF THE ETAH DISTRICT.

147. The towns in the Etah District are :—

	Inhabitants.
Khasgunj, ...	15,107
Mahrehrah, ...	9,670
Soron, ...	9,332
Alleegunj, ...	7,813
Etah, ...	6,507
Sukeet, ...	6,087
Doondwara, ...	5,272

Of the above, Khasgunj, Soron and Etah are towns which have a Municipal Government :—

148. KHASGUNJ.

Inhabitants, 15,107

Municipal Income in 1868-69, Rs. 20,759,

Expended on works of improvement *viz* :—

For engineering establishment	Rs.	383
,, conservancy	,, ...	1,499
,, original works,	,, ...	1,554
,, repairs	,, ...	1,014
	Total ... Rs.	4,450

The percentages of expenditure stand thus :—

Works of improvement, ...	21·4
Police, ...	10·8
Collecting, ...	10·7
Miscellaneous, ...	6·6
Balance in hand, ...	50·5
Total, ...	100·0

From this it appears that not quite half the available amount was expended in the year, and certainly a balance in hand of Rs. 10,459, at the end of the year, witnesses to the flourishing state of the Municipal Fund; and I should say at once that this satisfactory accumulation of money has occurred not from neglect of the town, as my Report will show, but more because expenditure for works and repairs, done or commenced during the year, has been carefully and economically controlled, and because a balance of Rs. 7,747 remained in hand from the previous year.

149. I inspected Khasgunj on the 10th of January. It is a remarkably busy town, with a centre bazaar road, which reminded me of the Furruckabad bazaar, the busiest looking street I yet know in the province. At Khasgunj a very considerable trade in coton, ghee and indigo seed is carried on. Many commission agents reside here, the people are prosperous and it is held in favour as a place of residence by the people of the country generally. Its site is but little raised, but yet sufficiently so to permit of the draining of the site towards the Kallee Nuddee, which runs about 1¼ miles to the south-east side of the town, and this fortunate circumstance has been taken advantage of to provide a broad shallow cutting which runs from the town to the nuddee, and provides effectually for the removal of excessive rainfall.

The town itself is of fair size, contains many well built houses, and is very full of trees, so that in many places it presents the mixed appearance of red brick houses and green trees which the inhabitants of India so much admire, and which really forms an essential element towards effecting a good sanitary state in any Indian town.

In comparatively recent times this town has been opened up and improved to a quite surprising extent, that is, surprising as compared with other towns I have inspected; so that now it has one broad kunkur roadway through the centre of the town from north to south, a second through the centre of the town from east to west, and a third which encircles the town round the north west and south sides, so that the principal public ways present the appearance of a cross surrounded by a circle, but the circle, on the east side, is not complete. Where the four roads, which form the cross, meet, a number of good shops, forming a handsome octagon shaped building, stand in the centre of the roadway there, and provide an appropriate centre to the town. The road from north to south is the principal bazaar, the shops which line it on both sides are very good, the roadway is well kept and properly drained, but the drains are too deep, and were seen to the filthy in places.

The road from east to west has also very good shops in places, but its roadway is not so well kept, and especially that part of it leading to the Suhawur gate, which was noticed to be much broken and sadly to need repairs in places.

150. Off the principal bazaar road are two large wells close together, from which great numbers of people take their drinking water. It was noticed that the surface about the wells was much in want of drainage. Kunkur blocks, apparently for use to remedy this defect, were seen lying near, and it is very desirable they should be utilized, so that filthy water may not lie about the wells. Many other good wells were noticed, but nowhere did their drainage appear to be properly cared for, although some have large drainage tanks. In all, it was said, there were 52 public wells of brickwork in the town, and their improvement might well engage the attention of the Municipal authorities.

It was noticed that in the large thoroughfare from east to west, saucer-drains of the best kind, made of kunkur blocks were being laid down at the sides of the road.

The butchers' slaughter places were seen to be well kept, and the shops for the sale of meat clean and good of their kind. From this it will be understood that many Mahomedans live in the town, indeed there is an influential Mahomedan society here, and their principal mosque, built by Khan Bahadoor Khan, 150 years ago, is the most important structure in the town, and altogether peculiar for its quaint roof and numerous minarets. It was noticed to be very carefully kept, cleanliness prevailing everywhere, and the best kept well in the town is situated near the mosque and cared for by its keepers. Indeed, I should record here that the condition of the Khasgunj mosque symbolizes the condition of the mosques of most of the towns I have seen during the past two years. Be the condition of a town what it may, the state of the mosque and its precincts is, as a rule, praiseworthy.

The east end of the town is a Hindoo quarter and is more neglected than the rest of the town, so that with its mud-houses and broken waterway roads, it presents a comparatively miserable appearance. If this part could be opened up by a kunkur roadway to complete the circular road, it would form a good commencement of improvement there.

151. The serai at Khasgunj is, as far as I have seen, the most marked instance of modern improvement in serai accommodation in the province. Until quite recently its enclosure was crowded by 30 mud-houses, and the lodgings for travellers were ruinous places of mean appearance. Now the enclosure has been cleared and is a wide open courtyard, well levelled, shaded by fine trees, which, however, require protection; a small mosque, now being repaired, occupies the centre, and the surrounding lodging places have been rebuilt so as to form a series of well proportioned arches of durable material. The serai well was said by the travellers present to contain good water. The paving and draining of the site surrounding the well would be an advantageous addition to the very great improvements effected here already. I would desire to commend the improved sanitary state of this serai to the attention of the authorities of all towns. Formerly it was, by all accounts, a miserable place, over-crowded by permanent residents; now it is the pleasantest place in all Khasgunj, and travellers are spreading its fame. It seems to me well for the authorities of towns generally to take into consideration the case of travellers, a very large and important section of society at all times in this province, and which, the peculiarities of the present time tend daily to increase. I have seen much already which shows me that in the time of the Emperors admirable accommodation was provided for travellers, but in the troublesome times which succeeded, the former interest in this matter apparently died out, the good old serais were neglected, the inn-keepers or residents of the town built themselves huts in the pleasant courtyards, and now it too often happens that the traveller, more prone to disease than usual from weariness, has to pass the night in places where fresh air is wanting, and where sometimes contagious disease is brought quite close to him.

Seeing that the ordinary traveller has no choice in the matter of the place he shall rest in, it becomes a matter, not only of justice, but of common prudence and humanity, to provide as good sanitary arrangements there as may be, and the first and most necessary step in that direction is the removal of permanent residents and their families wherever they crowd the serai.

152. There are two puraos or halting places for bullock carts in this town. One to the north, a most unfit place, is rented for the purpose; it consists of an enclosure with deeply depressed surface altogether undrained, and which, at the time I saw it, consisted mostly of sand and mud, and it contains no trees or shelter of any kind. The other to the south outskirt, much more fit, with a sound surface which can be drained, and a very good well, with high surrounding platform of kunkur blocks, but here also there are no trees.

The creation of a good purao here would be a work of great public utility; the site to the south, properly drained and planted and somewhat enlarged, would answer admirably for the purpose. The site to the north should be abandoned as a purao, its loose soil appeared to be saturated with impurities, and as it is near to, if not quite amongst the houses of the town, it is altogether a very undesirable place for a purao.

A new Dispensary has recently been built in this town. It is plainly, but strongly built with round arches, and is well placed on the north-east side of and well within the town. It is in contemplation to connect it with the centreway of the town, by means of a kunkur road, and as the kunkur lay ready to hand, probably the very much broken road which led up to it has now been properly made. The dispensary site is open, fairly raised, and the surface durable, but the surrounding wall was seen to be much broken, giving the place a miserable aspect, which the entire absence of trees or verdure of any kind added to.

The Thannah is a very old building in a bad state of repair. The Lock-up was seen to be a solid cell, 10 feet square, ventilated only by the grated door. It contained no prisoner, but I was informed by an officer whose testimony cannot be doubted, that 12 persons have been seen locked up in it at one time.

The Tehseelee is a poor mud-built structure of little importance. The Settlement Office near to it is also mud-built. These important offices occupy a very unfit site, and are much crowded by surrounding houses.

The School-house by comparison is good, its courtyard shaded by trees and bounded in front by an ornamental wall and gateway. The school flourishes, and 100 boys are taught. An English school-house is connected with it, and consists of two good sized rooms some 20 feet square, which require ventilation above.

The Moonsiff's Court, an old Mahomedan building of brick and mud, has low rooms fairly ventilated by two doors which open at the back, the site behind is much broken, ill-cared for, filthy with refuse in places. In front is a small flower garden, which the Moonsiff seemed as pleased to show as he was sorrowful over the neglected state of his Court-house which is not enclosed, and its immediate neighbourhood which is indeed in a bad sanitary state.

153. Besides the main roads I have endeavoured to describe, which give quite a modern aspect to the town, five of the narrower ways have been well made, paved with kunkur, raised in the middle, and drained on each side; and, excepting towards the east, all the narrow ways of any importance have been repaired.

154. As regards conservancy I can report very favourably of this town as remarkably clean and well swept everywhere, and no collections of refuse were found in any public road or lane. In this respect the deep drains of the great road seemed most to require attention. But certainly the public sweepers of the town are made to do their duty here with a thoroughness which contrasts with their carelessness in many other places.

155. But this notice of commendation cannot well extend to the outskirts, because there open public retiring places were seen much too near the houses, and on the east outskirt pigs were seen performing the part of scavengers; a remedy for this is to be provided during the current year by the erection of public latrines, on all sides of the town. If these could be provided in the form of plantation latrines as recommended for Etawah I think they would be more likely to attract a general attendance. But pigs should not be allowed to perform the work of scavengers, for two reasons, first, because pigs so fed are a cause of dire nuisance themselves, and secondly, because the flesh of these pigs is not wholesome food for man.

156. The works of improvement most worthy of encouragement at Khasgunj then are :—

The opening out and improvement of its east end generally; the repair of the Suhawur gate road; the repair and drainage of well precincts; the completion of the serai; the construction of a thoroughly good purao; the improvement of the dispensary site; the providing of a good police office and lock-up, and the improvement of public offices generally; the providing of commodious public latrine accommodation. And certainly, if the same economy of management which has hitherto been exercised at Khasgunj, can be continued, all this can be effected with the means at disposal, within a reasonable period of time.

157. SORON.

Inhabitants, 9,332.

Municipal Income 1868-69, Rs. 6,755.

Expended on works of improvement, *viz* :—

For conservancy, ...	Rs.	498
„ repairs, ...	„	503
Total,	Rs.	1,001

The percentages of expenditure stand thus :—

For improvements, ...	14·8
„ police, ...	41·2
„ collection, ...	23·4
„ miscellaneous, ...	8·2
„ Balance in hand, ...	12·4
	100·0

This does not appear to be a very satisfactory account, and indeed I think it doubtful whether as much has been expended on improvements in this town since the establishment of a Municipal government, as used to be expended before that government was established.

158. I inspected Soron on the 9th and 10th January last. It is a very important town indeed, when viewed in reference to the esteem with which it is held amongst the people of the country at large as a particularly holy place to which pilgrimages are made at all times of the year, the pilgrims I saw being mostly people from the independant Native states of Central India, who had come so far that their language was hard to understand. The centre of attraction at Soron is the Boodh Gunga, or old Ganges, which here forms a wide shallow pool on the west side of the town, the pool having temples and ghats on two sides of it. Budherea, a large village, almost town, and open cultivated land margins the remainder, so that Boodh Gunga lies between Soron and Budherea. In the rains it is a running stream which goes to join the Ganges above Furruckabad. During many months of the year at Soron, it is a wide pool of stagnant, bad coloured water, for many people bathe in it, and carry away its water to pour over their village gods, or to give to their friends to drink, and the water is much disturbed.

The ghats, 18 in number, on the east and north sides of the pool, are remarkably good, being built of stone or kunkur blocks, and brick steps go down from them to the water's edge, many peepul trees stand about or upon them, they are well kept, and I have no doubt whatever that the general aspect of the place is particularly pleasing to

the Hindoo mind. In past years endeavours have been made to bund up the Boodh Gunga below the ghats, so as to make the pool beneath them more permanent and deeper, but the floods have prevailed, and the ruins of a strong brickwork bund only remain.

Soron is a town of Brahmins, their chief man estimated the number there at 5,000. There are from 50 to 60 temples, and the Brahmins here distinguish themselves by wearing a scarlet blanket. They are a fine race of handsome men, who take great care of themselves, realize a considerable income, are much respected, the term Maharaj being heard on all sides in Soron.

I saw much of these people, because it happened that three of the chief amongst them had been known to me at Agra, in years gone by, and they seemed desirous to show me attention. From what I saw I have no doubt they are remarkably well off as a class, and the contrast between their numbers and extreme respectability, and the small amount of the Municipal revenue, seemed to me rather striking. However it cannot be said that they have hitherto very much neglected their native town, as this Report will show.

Besides the daily coming and going of pilgrims, there are from 10 to 15 greater assemblies in the year, which the residents called fairs, the average attendance at each being computed at about 25,000. But in December, every year, there is a great fair at which the attendance was said to be about 100,000 people. As all these people wash in the stagnant pool before mentioned, which has a muddy bottom, the probable state of the water there, and its general appearance, may be imagined.

Besides the temples mentioned, there are about 30 large well built dhurmsalas, or rest-houses here, many well raised and altogether of imposing appearance. Four wide roadways paved with kunkur blocks, a wide centre road kunkur-made, and many brick-paved, well arched smaller roadways provide for this town a good public thoroughfare which I have never seen equalled in the province. One of the kunker block-made roadways, which winds in a waving line from the outskirts of the town to the holy ghats on the Boodh Gunga pool, is really a wonderful specimen of road-making; wide, smooth, durable to a degree, winding apparently from design, to prevent undue crushing in a moving crowd of pilgrims who may have to pass down it at the hour of new moon or other appointed time.

The bazaar, a busy place of many shops, lines the centre roadway of the town, no side drainage has been provided for this road and the shops are shaded by old chuppers, the drippings from which injure the road.

A new thannah is being built on this road, and near to it a new post office, both suitable buildings for the purpose, standing on well raised sites, but much crowded by houses behind; at one place a little off the road, is a fine tamarind tree beneath which the ground is much broken.

159. The site of the town is raised considerably, for it stands in great part on the bank of the old Ganges, and consists essentially of many crowded brick houses divided by narrow gullies, many of which are paved with brick. As a rule the town was noticed to be well kept, and especially so the principal thoroughfares. But in Balan Mohulla a very filthy, bad smelling lane was noticed, and in a place called Bheter Dullan, the narrow ways were seen to be filthy with fæcal matter and refuse, so that it could nowhere have been swept or cared for for many days. Also amongst the houses small open spaces were seen to be used as public latrines, the contents of which were left to dry up there. Heaps of filthy mud, and in some places ruins, were seen to obstruct the drainage channels at the sides of the ways. Narrow mouthed cesspools at the margins of the roads helped, by the impurities they contained, towards the general impurity of the surrounding atmosphere.

In Mohulla Deekeet Kyathaya some filthy corner places were seen, and at the tops of the lanes there, neglected latrines made the place very unpleasant.

There are several small bazaars or collections of shops in different parts, and the town wears an aspect of general prosperity.

The mundee or grain market is a wide unmade street, the purao opens off it, and both the mundee and purao have a depressed surface which cannot be drained; also, in the purao, trees are much required to supplement the welcome shade of the three good trees already existing; but especially an improved conservancy is necessary here also, as filthy stalls and unswept places characterize the place. Two important waterways of the bazaar near were seen to be choked with refuse and leaves of trees.

160. The two serais here are almost ruined places, the one to the east was noticed to be fairly kept, but the travellers' rooms are mud built, in bad repair, and the well had much filthy water about it.

The school-house, in which 100 boys are taught, consists of very unsuitable accommodation for the purpose, in the forfeited house of a rather celebrated Brahmin who was, I think, hanged for murder. There are good rooms enough for a school, I dare say, in the house, but the place used for the purpose consists of two small rooms some 16 feet above the ground, fronted by an open platform, which is reached by a flight of narrow broken steps. Neither the steps, or platform, or window of the room are fenced or guarded in any way, and I should think it not unlikely an accident may occur there some day; also the school-rooms are reached by a close narrow way, as though hidden up in a corner.

The site of the old thannah, which is an open spot in the town, would serve well for a new school-house if its surface was properly raised and drained.

There is no dispensary in this town, although from the extraordinary number of casual visitors I should think an institution of this kind would be of frequent utility.

161. The drainage of the Soron site is naturally good, rainfall drains readily into the Boodh Gunga on the west, and into broken ground to the south and east, where many excavations, probably the results of the brick-making which the building of the town required, exist. These excavations are surrounded and divided by groves of trees, which are numerous all about this old Hindoo town, and for this reason I do not think the water which collects there is a cause of ill health to the people. Farther to the South-East, at about a mile from the town, there is a large jheel caused by the drainage of the rainfall of the surrounding country, which is held up by a line of low dune-like hills, which seem to be the bank of the ancient Ganges, and I think the general good state of health acknowledged to by the people of Soron, and apparent enough in the important Brahmin section of it, must be, in great part, due to the existence of the thick groves of trees which stand on the South-East outskirt of the town.

162. Budereea stands due west of Soron, on the opposite side of the Boodh Gunga. For most months in the year they are in direct communication by a broken sandy roadway; in the rains, water divides them, but the people seemed to consider Soron and Budereea as one town, and I think the authority of the Municipal commissioners extends to both places. Budereea is badly situated as the place of residence of some 2,000 people, as its site is so little raised that in flood times the people suffer much trouble from the rising of the Boodh Gunga, and certainly if the attempted bund across the river had been built so as to stand, Budereea would have been ruined.

So situated, Budereea is, as may be expected, a place of mud houses—though a few brick-built houses exist—and broken, depressed roads. Its bazaar is a wide roadway, all unmade and undrained, part of which runs at right angles to the rest; the chabootras in front of the shops are wide and well raised above the roadway which in the rains becomes

deep with mud. There are good old trees on the bazaar road, and a good well in which the water stood only 12 feet from the surface, and market is held there twice a week. In short Budereea is but a large village, in which some influential landlords of the rich land between Boodh Gunga and the Ganges proper, and many cultivators, live.

Budereea was found fairly clean, and the practise of retiring to some distance from the habitations, for purposes of nature, is well established here.

163. As regards improvements in Soron it will be seen that a very fair commencement has been already made, but all that has been done in this direction hitherto, as far as I could learn, was done years ago, when Mr. Mayne was Collector; and that gentleman's name seemed as familiar in the mouths of people at Khasgunj and Soron, as a benefactor, as the names of Lindsay and Hume at Furruckabad and Etawah. It seems very necessary, first, that what has been done should be kept in good repair, and secondly, that original works of improvement should be commenced. For these purposes a better income than the Municipality now passes must be provided, and the percentage expended for collection should decrease by one half. Then some of the crowded parts of the town may be opened up, brickwork pavements repaired, waste places reclaimed, a more perfect conservancy enforced, the grain market and purao improved, a good school-house, and perhaps a dispensary, provided.

For Budereea the improvement most called for is the raising and making of the bazaar roadway.

MAHREHRAH.

Inhabitants, 9,670.

Chowkeedaree averages, Rs. 118 per mensem.

Seven public sweepers employed at Rs. 2-8 each.

164. I inspected Mahrehrah on the 11th January. It is a much neglected town of which the inhabitants are mostly Mahomedans. The site is irregular, so that the lanes rise and fall in places.

The principal roadway runs from north to south, it is wide but unmade, much broken into holes and depressed in the centre. There are two bazaars, Uttim Bazurea and the Burra Bazaar. Uttim Bazaar to the north, as its name implies, is small, the shops poor, the roadway unmade, broken. Here a very filthy corner place, near one Lall Kishun's house, was seen.

Burra Bazaar is larger, the shops poor, with broken thatched verandahs. About half the length of the roadway has been raised and made with kunkur, but very badly, the surface appearing as large nodules, and no side drainage has been provided. The other half was being made with earth.

The South entrance to the town is narrow, the roadway broken, and there is a very large irregular water-hole at the southern outskirt of the town; at the entrance a much used well was noticed, with large drainage tank, which, and the surface all round the well, was filthy with the impurities which always collect about a well much in use, if its drainage is neglected,

The water was standing in the well only sixteen feet from the surface, which was accounted for by the fact that the land about Mahrehrah is irrigated from the Ganges Canal. Fever, however, was not said to be particularly prevalent here at any time.

The smaller ways of this town are remarkably narrow, so that the important matter of ventilation is ill provided for, ruined houses are common, these ways are all unmade and seem never to have been repaired, and the general aspect of the town is that of a much broken place, made more miserable by the comparative absence of trees. Heaps of refuse of old standing were seen in many places, a large heap of filth at Hur Narain's

house, a Brahmin. Some courtyards or enclosures filled in great part with refuse of all kinds, and corner places of ruins, or broken places in the ground amongst the houses, were seen to be used as public latrines.

Mud in small heaps, being sweepings from drains and cesspools, gradually collected, and remains of ruins, bricks, timber or firewood, were seen to occupy the narrow ways in many places.

The butchers' quarter, some 50 houses, well inside the town, and inhabited by Sheiks, was noticed as altogether abominable from neglect, the enclosures filthy with impurities resulting from the slaughter of animals.

The town, taken as a whole, is large and scattered. To the south-east all the houses are mud-built, and there are six bangle manufactories there. The other portions of the town contain many brick-built houses, which, as a rule, are in bad repair. The site drains towards the great southern excavation, towards which the water has taken its own course, resulting in the formation of quite a small ravine at one place which was filled up with earth last year, but the succeeding rains washed the earth away.

The serai is an enclosure formed by mud huts with thatched roofs, but the enclosure is filled in the centre with huts in which the bhotearas and their families reside. It was noticed to be well swept, and includes a good mosque.

The thannah is a mud-built place of small huts around a well and small mosque.

The lock-up is a solid cell 10 feet square and 9 feet high, ventilated only by the grated door. Fifteen men, the Assistant Magistrate's under-trial prisoners, were confined in it the day before I inspected the town. The short road to the thannah was seen to be broken into a large hole, still containing water and mud, the result of the rain of the 24th of December.

The government school, in which 74 boys are taught, is a mere mud-built, thatched verandah. The site is raised, a good neem tree shades it, and the boys were sitting at their lessons outside.

165. There are many brick-built public wells, with raised margins, in the town, but some of them contain brackish water, and the drainage of those most in use which contain sweet water, is not provided for.

166. Naya Bustee, a small separate town of itself, stands at the north-east corner of Mahrehrah. It is surrounded with high walls having corner towers, and is entered principally by two gateways, but other ways of entrance exist. It belongs to the decendants of a former Mahomedan ruler, now worshipped as a saint, whose tomb, which shelters the remains of 10 other members of the family, and a beautiful mosque adjoining it, form the one attractive feature of of Mahrehrah,—attractive, not more for the perfection of the buildings, than for the order and perfect cleanliness of their precincts. At the tomb a school of 40 well dressed boys, lodged in a well built and ventilated room, were seen to be learning the Arabic Koran.

Naya Bustee contains many brick-built houses, much crowded together, and inhabited for most part by Mahomedans, especially the descendants and connections of the Saint buried amongst them, who possess, as maafeedars, land in 32 villages in the Etah district. It has a small bazaar of its own, none of its roadways are made, but its houses are in better repair and order, and cleanliness seemed to be more cared for here.

167. It will be seen from this short account that the condition of Mahrehrah is very sad, even as it appears in the finest and coolest day of the year. What its condition, and the state of its atmosphere generally, must be in the rainy season can be imagined. The district authorities of Etah are, I know, well aware of the unhealthy state of the town, and improvements, which have commenced, will be continued.

Unfortunately Mahrehrah is not connected with any place by means of a well made kunkur road, and so remains a good deal isolated. Many of the inhabitants, too, are cultivators who value refuse very highly, and store it carefully, caring nothing for the harm resulting from the impure atmosphere engendered. But the general inhabitants of towns know very well that refuse heaps in them are hurtful and should not be allowed, for they have frequently complained to me of them.

The first requirement then of Mahrehrah is the establishment of a good conservancy there, and I think if the labour of the seven sweepers allowed was properly directed by the Police authorities on the spot, nuisances sought out and removed, their continuance forbidden, a remedy would be at once provided. This, with repair of the roadways, the removal of ruins, attention to the wells, the planting of trees, an improved direction of the drainage, would soon change the aspect of the town and bring it to a comparatively good sanitary state.

ALLEEGUNJ.

Inhabitants, 7,813.

House tax, Rs. 1,200 per annum.

168. The pay of four public sweepers, namely, Rs. 120, is all that is expended on improvements, whereas Rs. 768 are expended for chowkeedars, and Rs. 300 for collecting establishment of Bukshee and Naib Bukshee.

169. I inspected Alleegunj on the 5th of January. It is a town of comparatively little importance now, but was formerly the place of residence of Khan Bahadoor Khan, who lies buried here in a plain tomb, with a mound at its foot, beneath which the chieftain's favourite elephant is buried. The tomb is enclosed in a low wall of kunkur blocks, and well preserved, a keeper, who possesses 40 beegahs of land for the office, being appointed to it; and it forms, together with the handsome frontage of a ruined fort standing on a high mound near it, the only interesting feature of the place.

170. For the rest Alleegunj is a quiet country town, much isolated. It contains some large brick-built houses, but mud-built houses are most common. The principal roadway runs from north to south, is wide, kunkur-made, fairly kept, some parts of it are drained at each side, at other places this has been neglected. The shops forming the bazaar stand on each side of this road, and it presented a rather busy appearance and was seen to be cleanly kept everywhere. There are many little platforms in front of the shops which interfere with the proper drainage of the roadway. An important and much used well on this road was seen to be neglected, with filthy water about it, and a drain which should take away the water was choked with refuse. The tehseelee, a circular fort-like place, and the school-house, are situated on this road. The former was noticed to be remarkably well kept. The latter consists of a separate house of one room 25 feet by 22, with two side verandahs, but bare gable ends; 95 boys were being taught in it. The site surrounding it was noticed to be depressed, unswept, and without trees.

A second kunkur-made, but narrower roadway, passes from east to west, so that the town is well opened up and ventilated by roads which together form a cross-shaped opening, dividing the town into four parts.

The serai, built by Khan Bahadoor Khan, and consequently of considerable importance, stands on the east and west road, or rather this road runs through it. Its centre is all clear space shaded by good trees, it possesses a remarkably good well, the lodgings for travellers are good of their kind, and the place, as a whole, was seen to be carefully and cleanly kept. On this road also the thannah is situated, it was noticed to be a mud-built place with a large gateway, and inside it conservancy was seen to be neglected. The lock-up there is a solid cell 10 feet square, ventilated only by the grated doorway It contained three prisoners. No side drainage for the east and west road has been provided, consequently flowing rain-water has broken the kunkur in places. On the

western outskirt of the town there is a large irregular water-hole, and the first buildings of the town on that side form an indigo factory, the property of a resident of the town. The inhabitants of the neighbourhood complained very much of this factory as a nuisance and cause of ill health for some months in the year.

On the eastern outskirt of the town are two water-holes, and the inhabitants complained that these holes overflowed in the rainy season and flooded the weavers' quarter there.

171. Not long ago this town was in communication with Furruckabad, to the east, by means of a kunkur-made road, now the road was seen to be broken up from just outside the town, and a bridge which carried the roadway past the water-holes serves to let water pass to the holes instead of serving, as I think it might be made to do, to drain the holes towards the south in the direction of the Kalindree Nuddee.

With one exception, the lanes, roads, and site generally of this town, were seen to be carefully kept, their conservancy well managed, and this very commendable state of affairs is due, I have no doubt, to the great attention the resident tehseeldar, Mohummud Hafiz Allee Khan, gives to this matter.

But in Bhowanee Tolah Mohullah, a large pool called Chowraleya Tulao, of filthy, bad smelling water, in which men were washing hemp, and the banks of which were seen to be used as a latrine and place for refuse generally, presented a very unwholesome and altogether disreputable appearance, which very much calls for remedy.

172. ETAH.

Inhabitants, 6,507.

Municipal Income in 1868-69, Rs. 10,157,

Expended in works of improvement, *viz.*:—

For conservancy, ...	Rs.	888
„ lighting, ...	„	286
„ building latrines, drains and culverts, ...	„	652
„ repairs to roads, buildings, and wells, filling holes,	„	809
„ school boarding-house, ...	„	600
„ quarantine hospital, ...	„	75
Total,	Rs.	3,310

The percentages of expenditure stand thus :—

Improvements, ...	32·6
Collecting, ...	11·2
Police, ...	9·5
Establishment, ...	2·7
Miscellaneous and refunds, ...	5·7
Balance in hand, ...	38·3
	100·0

173. I inspected Etah on the 12th of January. This is essentially a village which has been opened out by means of kunkur-made roadways in several directions. Its most important place is Maynegunj, a remarkably good market-place, which serves its intended purpose admirably, and very fitly perpetuates the name of the modern benefactor of this district generally. It is in the form of two circles of shops, joined by a centre part, and stands at the side of the Great Trunk Road, and the town may be entered through it. Its centre is all open space, well furnished with kunkur-made roads, shaded by trees, and ornamented by two great stone lamp posts with octagon bases and pointed tops, which carry, however, very poor lamps; and two fine wells. It was seen to be remarkably

well kept everywhere. This gunj is a cheerful place of business, which seemed to be the bazaar as well as market place of Etah, and helps very much to prevent overcrowding in the town which seems to have sprung quite lately from a mere village into such importance as it now possesses, and, but for the creation of the gunj, would very likely have come to be much crowded. There are two things about this gunj which require attention: its surface is so ill drained that at two places rain-water lodges in considerable quantities, as a glance at the site will show, and the woodwork of the shops, which, in the first instance, was of too small scantling, has so badly sagged as to make some of the shops dangerous to live in, and spoils the appearance of more than half of them.

Immediately behind the gunj is the modern part of Etah, which has been laid out with good roadways, and here there is a new street of rather good houses, and a new English school-house, built like a small church, with square steeple; 100 boys are taught here, in a large well ventilated room, and the site of the school is well raised and was being further improved at the time of my inspection. The small boarding-house attached to the school is mud-built and has a tiled roof, the woodwork of which is bad, so that although quite new, the roof looks badly and will soon become dangerous. The site of the boarding-house, too, is depressed, so that rain-water will lodge all about it.

174. The natural drainage line of Etah is towards the east, but the fall is slight, and the great evil of the Etah site, in a sanitary point of view, was the periodical floodings to which it was subject in times of heavy rain, and the existence of numerous shallow water-holes which hold up a considerable quantity of stagnant water. The old floodings were remedied by Mr. Mayne, who made a cutting from the new part of the town to a tank on the east outskirt, and then connected the tank with the Eesun Nuddee by a second cutting some four miles in length. In the neighbourhood of the tank mentioned very considerable improvements are being carried out by Rajah Deb Sookh Rai, which will probably result in benefitting the general health of the residents of the town. The Rajah having built, after his own design, an extraordinarily high and very durable temple near to the tank, has now taken the tank in hand, has deepened it, squared its sides, filling up much low land about, and is bent on surrounding it with steps of kunker blocks which lie ready to hand. I think there can be no doubt that if the cutting from the town to the tank was deepened and extended, many of the shallow water-holes around the town might be drained. The reclaimed land brought into cultivation would soon be raised above its present level, and the greatest cause of ill health at Etah removed, and this might safely be done so long as the outlet on the further side of the tank and the cutting to the Eesun were kept perfect.

Besides the tank, the Rajah is engaged in another work likely to be of permanent public benefit, namely, a new school-house which he is building of kunkur blocks, fine bricks and lime, as durably as the great temple near it, just completed. This new school-house stands on a well selected site, open everywhere, and capable of perfect drainage to the tank. Its rooms, characterized by massive pillars and wide oval arches, are raised high off the ground by a terrace like plinth, and when its precincts come to be properly levelled, enclosed and planted with trees, the undertaking is likely to present an appearance of perfection, and witness to a praiseworthy wisdom of design.

The Rajah is also building a remarkably fine public well near to the tank, and altogether when the works now commenced have progressed to completion, the eastern suburb of Etah will present an appearance of which any town might be proud.

175. The drainage cutting from the town to the tank was seen to be well made and in good repair, perfectly clean and dry. The cutting beyond the tank to the Eesun requires attention. The town itself is composed of mud-built houses, divided by the usual narrow unmade ways, but opened up by kunkur-made roadways in several directions, the roadways are well made and furnished with saucer-drains. The town as a whole was seen to be cleanly kept, it contains several good wells with raised margins, but, as a rule, their drainage is not properly provided for, and especially in the Kaeth's Mohullah,

a much used well was seen to be surrounded by a deep fringe of black mud, its brick-work above broken, and no drainage of any kind provided for it. Close to the town, indeed, forming part of it, is a vast shapeless mound of earth, formerly the gurhee, or fort, now a great mud heap; around it are flat holes in places which hold stagnant water. They are near to the commencement of the drainage cutting, and might be drained to it. The earth of the gurhee lies ready to fill them up, and if the Municipal authorities could undertake this work I think the result would be very satisfactory, from a sanitary point of view.

176. On the east side of the town, and amongst its buildings, there is an open spot which contains a great banyan tree and a public well with a well raised border in the shape of a mound, but the site itself is much depressed and neglected; by raising the surface this spot might be well kept and made a pleasant place of resort and source of health, as providing fresher air to the neighbourhood generally.

The Moonsiffee is a suitable building well placed, and the Moonsiff has planted trees in front of it; perfect cleanliness prevails about it, and when shade is provided it will become a pleasant place of business for the people of the Civil Court.

177. Six public latrines have been provided in the outskirts of the town, they consist of small enclosures furnished with tile roofed cells, and if not frequented by any great number of people, their existence obliges those who do not frequent them to retire to a considerable distance from the town, for the purposes of nature, as nothing like impurity from this cause was seen anywhere in the town or its outskirts.

178. The Civil Station of Etah is a quiet place, of which the Great Trunk Road, which passes through the station, is the most noticeable feature. Its site is remarkably level, and the subsoil water stands about 24 feet from the surface. It contains a few widely spread houses of residents. The jail, remarkable, as are all the jails I have seen of this province, for its good management and excellent sanitary condition within, occupies a site on which water lodges outside the jail walls, especially on the east, west and south sides; the north side has been raised with earthwork, otherwise it might be said that the jail occupies a site towards which the rain-fall of the surrounding land drains. On the south side are shallow excavations; indeed, the site very much requires drainage, and the Municipal authorities might well give attention to this matter: a properly made cutting, following the natural drainage line to the south-east, would provide the necessary remedy.

The Dispensary, situated on the Great Trunk Road, is a suitable building, fronted by an ornamental wall; separate rooms and courtyards have been provided for the treatment of the better classes of patients, or for contagious diseases. The enclosure mud wall was seen to be broken in places at the back; and the cells for the confinement of insanes—two rooms, their separate small courtyards having remarkably high walls—would make dreary places of confinement for men in a healthy frame of mind.

The Tehseelee, which is situated furthest east of all beyond the Rajah's great temple, is a fort-like place, with great mud enclosure wall and arched gateway, and was seen to be well kept in every way.

SUKEET.

Inhabitants, 6,087.

Chokeedaree, Rs. 94-8 per mensem.

Four public sweepers at Rs. 2 each.

179. I inspected Sukeet on the 13th January. This, like Alleegunj, is a much isolated town. Like Alleegunj, it has seen better days, and its ruined fort hill on which now only foundations and the remains of a great old mosque of kunkur blocks, and three reverenced

stone tablets of Arabic inscription remain, testify to the existence of a time when the Mahomedans were chief here. Now, although Mahomedans are more numerous in the town, the few rich people are Kyeths or Jains, who are building, or it may be hoped intend to complete, a half finished temple, on the highest site in the town,—a stone built temple, high raised up and surrounded by cloisters of Saracenic arches, supported by slender carved pillars of stone. Muttra supplied the architect, and a commissariat servant, who prospered at Ferozpore, gave the money for it until he died, 15 years ago; and so just were the workmen, that what was then completed looks as though finished but yesterday.

The town clusters round this temple, which is seen from far off. It is entered from the north by an unmade roadway, which is carried over a place where stagnant water lodges by a fine new bridge of kunkur blocks which were taken from the foundations of the old fort, and this bridge is the only evidence of modern improvement in the place. All and everywhere else the record is of neglect and careless Municipal government, so that this old town seems to have fallen on evil days.

Its bazaar roadway is unmade, crooked, broken; the shops poor, with plain flat fronts; no made roadway exists in the place. There are three fine houses in which rich Kyeths live, and many small brick-built houses, amongst which mud-built houses mix; neem, peepul and banyan trees are pretty numerous. But many parts are in ruins, the former inhabitants having, it was said, in part left the town. These ruins and many enclosures amongst the houses were seen to be extremely filthy. Manure heaps were seen in several places in the town, and nowhere in any part of the town were arrangements for its drainage seen to exist. The site of the town is just sufficiently raised to allow the rain water of a moderate fall to flow to the outskirts, but when flood times come, the outskirts fill with water, which flows back into the town, so that then, on the testimony of the chief constable of the place, excepting the high part on which the temple and adjacent buildings stand, the town is flooded with water, which stands waist deep in some parts, and so surrounded with water that a way out of the town is hard to find on any but the north side over the new bridge. At, and after such times, fever, it was said, became frequent and dangerous.

There are many good wells in the town, some built of block kunkur in the old times, but the water in many of them is brackish, consequently the comparatively few public wells of sweet water are much used and the sites surrounding them sadly need improvements.

The School-house is a dreary looking mud-built house with broken thatched roof, situated on the bazaar road; 70 boys were being taught in it. Its site is sufficiently open to permit of inexpensive improvements, but the idea of making the school a pleasant place, or a place of good sanitary repute, is not likely to have entered the minds of a people who live within the influence of a place like Sukeet.

Amongst the better class of houses around the great temple some of the lanes have been furnished with square brickwork gutters as receptacles for impurities which come from the houses, and when the gutters are full, their contents are scraped out and thrown at the side of the gutter to dry up, and I saw several places where this had been recently done.

The business of the town, at the time I inspected it, seemed to be confined to the sale of food, the collection and export of cotton, for which six separate shops existed, and the removal of kunkur blocks from the foundations of the old fort for the building of bridges and canal works.

The Serai is a ruined, entirely neglected old place, entered from the bazaar road, the roof of its old mosque broken, the water of its fine well brackish. It is not therefore astonishing that an average of only about one traveller a week stopped there.

The Thannah, the only Government establishment in the place, excepting the school, is a new square enclosure of brickwork, standing on the old fort site, and as though to

be in keeping with the rest of the town, whereas it should show a good example, the people there had established the practice of throwing the refuse sweepings of the enclosure just outside the entrance gateway so that small heaps of that nature lay in front of it.

180. The town, as a whole, does not cover an extensive site, indeed it cannot well be large on account of the numerous excavations which surround it, and especially the north-east outskirt is bounded by a very extensive water-hole, containing much water at the time of my inspection, but which, in the rains, must present the appearance of a wide sheet of water, and the pressing need at Sukeet is the efficient drainage of this lagoon so that it never can overflow its banks. The Eesun Nuddee is just three miles west of the town, and it seems reasonable to suppose that a careful survey of the intervening land would discover natural drainage channels which by improvement would effect the necessary change. Until this urgent necessity is remedied, it is hopeless to expect any permanent improvement in the state of the town, or happy change in the listless, rather sullen, aspect of its people generally.

DOONDWARA.

Inhabitants, 5,272.

Chowkeedaree, Rs. 96.

Three public sweepers employed at Rs. 2 per mensem each.

181. I inspected Doondwara on the 7th of January. It is divided into Doondwara-gunj and Doondwara-khas, separate places divided by a strip of open country. The first is the most important, but they both stand in a line on the same roadway, and are sufficiently close together to be considered as one town.

182. Doondwara-gunj contains the bazaar, the market place, the serai, and its centre roadway is rather a busy place, some of its shops, especially those for the sale of cloth and blankets, are well built, and altogether, although strictly a country town much isolated, it presented a fairly prosperous appearance.

183. Doondwara-khas is a great mud village, containing many large mud-built houses and enclosures, the houses of Mahomedan zemindars; the houses standing about without orderly arrangement and divided by narrow, deeply sunken ways, never, and never intended to be, made or repaired; a place of country people who want little communication with the outer world, although the principal inhabitants are perfectly polite to strangers, after the manner of Mahomedans generally.

In Doondwara-gunj also the inhabitants are principally Mahomedans, of which a powerful body of weavers, said to number 700, are most important, and at the time of my visit a serious feud concerning nuzzool land in the chowk, existed between the zemindars of Doondwara-khas and the weavers of Doondwara-gunj, and had progressed to bloodshed, so that the people of the two places were a good deal separated.

Both towns are narrow and of no great size, the short road which joins them is a wide unmade mud track, and neither of the towns communicate with any other place by means of a well made road. The sites of both towns are fairly raised, and surplus rainfall runs away northwards to the Boodh Gunga stream which is two miles distant. But no especial arrangements for the drainage of any part of the site, excepting the main road of Doondwara-gunj, exist.

184. Of the two places Doondwara-gunj is most fit for and capable of improvement, which, indeed, has commenced, but seemed strangely to have halted at the commencement. It consists principally, as regards its more public places, of the meethai-mundee, or place of sweetmeat-sellers' shops, an open space in the north-west outskirt, which communicates with the serai, which again opens on to the bazaar roadway which runs from west to east, and passes, for some little distance with shops on each side, to join

the market place. In this meethai-mundee, serai, roadway and market place, a very considerable assemblage of country people takes place every Monday and Thursday, the market days, and in them improvements might best be made.

The meethai-mundee has a depressed surface which is undrained, so that in the rains it becomes all mud, it contains a few trees in one corner only. By raising and draining its surface and by planting trees at proper intervals it might be much improved. The road from the meethai-mundee to the serai is depressed so that, at the time of my inspection, it was heavy with mud, although rain had not fallen for ten days. The serai is small, mud-built, and was seen to be cleanly kept, the centre of the enclosure clear, and shaded by two fine neem trees. The serai well is just outside the serai gate, a good brickwork well, built by the Bhutearas who own the serai, furnished with a parapet-wall and drainage tank; the latter was seen to be filthy with much refuse.

Entered from the west, the bazaar road commences with a small mosque on each side, built respectively by the butchers and inn-keepers of the town, and giving rather a pleasant appearance to the commencement of the busy street.

The roadway, as it leaves the open country, rises considerably, as though by design, and maintains its higher level from end to end, and is well arched from side to side, with rather deep drainage channels or unmade cuttings on each side close to the rather well built shops, for the roadway is not very broad.

Where the road first rises it is broken into a wide hole, and kunkur was seen to be lying near for its repair, also almost throughout the whole length of the street kunkur had been thrown down for the making of the road which hitherto has been unmade, and had been left lying so long there that the country people of market days had trodden it into smooth heaps and ridges, to the great decrease of its value, and I should suppose their discomfort. About the centre of the bazaar the road crosses a culvert which carries the drainage from the south to the north side. The culvert, wood-made, was broken down, so that the passage of carts and animals there required help and careful management. On the north side of the road is a much used well at which many people drink. Its mouth, level with the surface was seen to be surrounded by mud and filthy water. It was said to have no owner.

The market place, mundee or chouk, is a small square on the south side of the bazaar road, to its eastern end. Its surface is depressed, undrained, broken into shallow holes, in places a few neglected trees, one dead, stand on it, and it contains a good well with raised margin. Houses with shops surround it in great part, the bazaar road, continued for a little distance beyond the mundee, ends in the broad unmade way to Doondwara-khas.

185. I think this bazaar road and market place well worthy of strenuous effort for their improvement by bringing them everywhere to a proper level, by metalling and draining them, by reclaiming the much used well and its site, and by providing a brickwork culvert across the road. The town, comparatively small as it is, contains many prospering people, and is doubtless much thought of and frequented by the inhabitants of surrounding villages.

186. All the smaller ways of the town are unmade depressed waterways, never apparently repaired or cared for in any way, but with the exception of the butchers' slaughter place, a remarkably filthy yard at the back of their houses at the west end of the town, cleanliness seemed to prevail everywhere, manure heaps are allowed only beyond the town limits, and all the people who can do so go out of the town for the purposes of nature.

187. The rainfall of the place drains towards a low shallow water-hole outside the town, on the north side, which again, when it fills, drains towards Boodh Gunga, so that the town is saved from any danger of flooding. The neighbourhood of this water-hole

is the great public latrine of the townspeople, and pigs are driven there to perform the part of scavengers. It was found a very unpleasant place, the ground much littered with impurities, the air very impure, the stagnant water from frequent use for purposes of ablution, was, as water, altogether abominable. The day preceding my date of inspection happened to be market day, and it seems not unlikely the market folks helped considerably towards the defilement of this place. Perhaps it might not be impossible to introduce a better custom, at least for market days, by providing an enclosed plantation latrine to which a sweeper should be attached, and then forbidding the use of the open ground around the water-hole.

188. The school-house is an old mud-built house, its verandahs shaded by broken thatch. The school-room, 30 by 14 feet, contained 109 boys, it stands on an open site which has not been improved with trees, or in any way, and altogether presented a wretched appearance for a place in which so much and such good work was being done.

189. In Doondwara-khas the only places of public resort worthy of consideration are the purao or halting place for bullock carts, an open space without trees, its surface depressed and undrained—the zemindars might be encouraged to improve it with much advantage—,and the Chopal Neshustgah, where the zemindars and their cultivators meet for friendly converse, a place characterized by a clean earthen platform beneath a wide spreading tree, and a well of sweet water.

CONDITION OF THE TOWNS IN THE AGRA DISTRICT.

190. The towns in the Agra District are,

	Inhabitants.
Agra City, ...	1,42,661
Ferozabad, ...	13,163
Futtehpore Seekree, ...	8,600
Kotlah, ...	7,120
Pinaht, ...	6,124
Bah, ...	5,365

Of these, Agra City, Ferozabad, and Futtehpore Seekree possess a Municipal Government.

191. AGRA CITY.

Inhabitants, ...		1,42,661
Municipal Income for 1868-69, ...	Rs.	1,85,613

Of this the following sums were expended for improvements, *viz.*:—

For conservancy, ...	Rs.	19,618
„ lighting, ...	„	6,194
„ watering, ...	„	6,418
„ roads, new and repairs, ...	„	20,967
„ bridges and drains, ...	„	3,759
„ arboriculture, ...	„	2,198
„ repairs to buildings and office, ...	„	1,143
„ map of Agra, ...	„	175
„ destruction of dogs, ...	„	15
„ improving ghâts, ...	„	139
„ cleaning city wells and tank, ...	„	75
„ registering deaths, ...	„	126
„ grants to hospital and museum, ...	„	8,880
„ relief committee, and education, ...	„	2,950
	Total, Rs.	72,657

The percentages of expenditure stand thus:—

Improvements, ...	39·2
Police, ...	27·1
Collecting, ...	7·2
Establishment, ...	2·9
Miscellaneous and refunds, ...	4·0
Balance in hand, ...	19·6
	100·0

and show, I think, a very commendable economy of expenditure and careful management of the comparatively large fund at the disposal of the Municipal Committee.

192. I have inspected Agra on two former occasions, and reported at some length concerning it in my last Annual Report.

On this occasion I inspected it on the 7th of February, and it will be best for the purpose of this Report, and prevent repetition, if I mention now only the places seen which most require improvement, leaving it to be understood that the city, as a whole, presented in all its more public ways, its usual appearance of a carefully managed city, for which modern Municipal government is effecting important changes likely to be attended with good results as regards the health of the inhabitants.

193. The first place I would draw attention to is Lohargunj, a crowded quarter with narrow streets and over-hanging verandahs; the streets paved with brickwork. Here the pavement was seen to be much broken into holes, the side drains very filthy, the atmosphere noticed to be very impure.

194. Secondly, Neemuk-mundee, also a crowded quarter in much the same condition as Lohargunj, but at one place where seven public urinals exist, which were noticed to be imperfectly constructed and not properly managed, this part was especially unpleasant. Beyond Neemuk-mundee, and at the north-west outskirt of the houses there, a large open space exists, called Maee Than teelahs, which is used as a place of deposit for filthy water and refuse generally, so that it presented a very sad appearance of neglect; and its atmosphere, far from adding to the purity of that of the crowded neighbourhood near, appeared likely to increase its impurity.

This open space being properly levelled, planted with trees, and preserved from impurity, might be made a source of health to the inhabitants.

195. Thirdly, concerning Tajgunj which may be considered a separate town, yet sufficiently near to the city to share the attention given to it. Moreover its connection with the famed Tajmehal which stands on the north side of it, and to which countless visitors come, make it very desirable, I think, that Tajgunj should not be neglected. In inspecting this place I noticed that it was a good sized town, said to contain from 5,000 to 6,000 inhabitants, and about one-third of its houses are durable brick structures. Nunda bazaar, its principal street, is wide, and has good houses on both sides, spoilt however, as regards appearance, by old thatch sunshades supported on temporary pillars. The thatch carries rain down on to the roadway which was of good brickwork, now very much broken everywhere; several ruined houses were seen, nowhere was any roadway except the Nunda bazaar seen to be made, or even repaired with earth. No arrangements for the drainage of the town site or roadways could be seen, although it is well placed for this purpose, the site slightly raised and nullahs convenient; one of the latter, in Pak Tola Mohullah, was seen to be used as a receptacle for town refuse. The people living in its immediate neighbourhood complained of this as a nuisance, with good cause.

No public sweepers are employed at Tajgunj, and consequently the proper conservancy, even of its more public ways, is not well managed.

FEROZABAD.

Inhabitants, 13,163.

196. Ferozabad is an important town to which a Municipal Government has been granted only during the past year; no account of income or expenditure has yet been received, but I may state that its Municipal income at present is about Rs. 4,500, of which Rs. 180 is spent for improved conservancy. The Great Trunk Road passes through Ferozabad; the railroad passes it on the east side, and the station is conveniently near. The town has a busy, rather prosperous appearance, in places, but the results of a long period of neglect are apparent on all sides.

197. I inspected Ferozabad on the 30th January, its main road, which is the Great Trunk Road, is the only made road in the town. It is, I need scarcely say, an admirably made, a wide, solid road, with side drainage. The houses of the principle bazaar line this road on each side, and by their overhanging verandahs, double stories, and general good appearance—the beautiful roadway intervening—give to the town at first sight a very promising look; everywhere out of this roadway, however, appearances greatly change, all the roadways are seen to be unmade, depressed, many very narrow, so that ventilation is much interfered with in places, refuse heaps in corners were common.

The Bunneah Mohullah, a quarter of fine houses, was seen to contain many cesspools whose contents made the atmosphere impure, and its roadways were seen to be broken into shallow holes.

In Mohullah Sheshgurran, where bangle-makers live, and work eleven ovens, there is an open space formerly the site of a serai, the land nuzool, now broken ground cut into holes into which refuse is thrown. It contains a fine public well and might be improved with much advantage.

There are 14 serais, great and small, in this town, which is a noted halting place for travellers, being one long march from Agra.

The principal serai is a largish enclosure, the courtyard shaded with trees, the surrounding mud-built rooms for travellers well leeped and cleanly kept, but the surface of the enclosure is undrained, and buildings are scattered in the centre; a second, opposite to it, was seen to partake of the same characteristics.

The Thannah, a brick-built fort-like place, reached from the main road by a narrow way running westward, was seen to be in bad repair outside but well kept within. The tehseelee, further to the west, a mud-built fort-like place surrounded by a ditch, was seen to be ill kept within, the three good neem trees which shade its courtyard, uncared for, their roots all exposed.

The School-house, opposite the tehseelee entrance, is well situated as regards its actual site, and fairly shaded by trees, but a broken graveyard near to it, which must hold stagnant water at times, is likely to be a cause of fever disease.

Beyond the Tehseelee again, to the west, is the Gunj, a large square, margined by good brick-built shops, the enclosure shaded by much neglected trees, its surface ill kept, broken, filthy in places, very thick with dust. In the centre of the Gunj is a much respected Fukeer's grave, walled close round, the wall broken, and other small tombs, about which much refuse lay uncared for. This Gunj is a much frequented place of business. It was described as nuzzool property but yielding no income. The appearance it might quickly present under an improved management would amply repay the attention given to it by any public spirited person in authority.

On the main roadway, besides the good houses described, there is an old flat-domed mosque, for the majority of the people are Mahomedans. The mosque is admirably kept in every way, fronted by a square tank of clear water, and the enclosure shaded by wide spreading trees. The mosque well is at the margin of the road, a fine well of former days, with a square stone mouth and high raised surrounding platform, its water very much in request. No drainage is furnished and filthy water lay all round the well.

In the neighbourhood of the mosque is a fair stone-carved Jain temple and good dhurumsala, and it was stated that about 1,000 people professing that religion lived in the town, and that in the month of March a Suraogeis fair is held in this town.

The side drains of the main road were seen to be choked with mixed earth and impurities in many places.

198. The outskirts of the town require attention more, if any thing, than the interior.

On the north side are many graveyards. The ground is much broken into holes, no drainage way is provided, and the inhabitants complained that in the rainy season the outskirts there became deep with mud when the stagnant water had dried up.

The south east outskirt is the butchers' quarter, well placed at the margin of the town, but fronted by a wide space of open ground, much soiled with scattered refuse, and broken into holes, the holes containing bones of slaughtered animals, a generally dreary region in which pariah dogs abounded, and the air of which was unwholesome. The slaughter-places also are not properly hidden, the screen wall being broken down.

The railway runs immediately to the west of the town, raised on a rather high embankment, beneath which three wide waterways have been provided at considerable intervals. The only drainage way for excessive rainfall is to the west, towards the Jumna about two miles distant. The railway embankment has intervened, and, as things now exist, the three wide ways provided through the embankment do not suffice to prevent undue lodgement of water generally on the town side. This is a very important matter as regards the health of the people and well worthy of careful investigation. The local authorities and the inhabitants in some instances complained of it and would, I think, be glad to have it rectified. Probably, properly cut waterways to reach the most convenient opening in the embankment might suffice to remedy this evil, but, I think it not unlikely an engineer might determine that more frequent waterways through the embankment are required.

On every outskirt are open waste places to which people resort for purposes of nature, and pigs perform the part of scavengers.

199. I think I may safely say that the only benefit recognized by the people of Ferozabad as conferred upon them from without, for many days, is the recent establishment of a dispensary there. This consists, however, only of a small room of a house in the bazaar, rented for Rs. 1-8-0 per mensem, reached by a remarkably narrow stairway. A native doctor, furnished with medicines, was seen in attendance. The room and stairway, at the time I was taken to see them, were so unpleasant, from an odour of decaying urine, that I was glad to escape into the fresh air.

200. This account will, I think, suffice to show that the work of improvement may well be commenced in this town; but means for increasing the Municipal income must first be provided, and I should think this might well be managed in a town of the comparative importance of Ferozabad, towards which a considerable amount of traffic converges, and where many people in fairly comfortable circumstances live.

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201. FUTTEHPORE SEEKREE.

Inhabitants, 8,600

Municipal Income for 1868-69, Rs. 4,485.

Of this the following sums were expended on improvements, *viz.* :—

For conservancy,	...	...	...	...	Rs.	456
„ branch dispensary,	...	...	...		„	168
				Total,	Rs.	624

The percentages of expenditure stand thus :—

Improvements, ...	13·9
Police, ...	13·2
Collection, ...	10·3
Miscellaneous, ...	5·9
Balance in hand, ...	56·7
	100·0

202. I inspected Futtehpore Seekree on the 10th of February. It is peculiar amongst towns by reason of the interesting ruins which neighbour it, and silently witness to the greatness of the Mahomedan emperors, as forcibly, perhaps, as any other buildings in the land, of those days. For Futtehpore Seekree was to Agra, then, what Windsor is to London now, and on all sides evidences of its former state of extreme respectability and prosperity may be seen in buildings of fine proportion, either crumbled down to ruins or struggling hard against decay, which even red sandstone, in a climate so variable, cannot long put off.

Some grand buildings, however, remain fairly well preserved, thanks to quite recent carefulness for them; and chief of all, Saleem Chistie's Durgah, the burial place of the great emperor's minister, which even now stands with its vast enclosure wall and gateways of beautiful appearance, its smooth courtyard of noble width, its tomb of white marble tracery, as perfect, except for time's softening, as the day it was completed.

203. The site of Futtehpore Seekree may be described as an oblong, measuring a mile in length and three-fourths of a mile in width. Its northern margin is bounded by a wide sandstone ridge from one to two hundred feet in height, its remainder bounded on all sides by a battlemented stone wall 20 feet high, pierced by 10 to 12 gateways. The wall with its towers stands up bravely, but ruinous parts threaten a speedy downfall.

The buildings of the court which now remain, occupy the ridge, with Saleem's tomb in the place of honour at the highest point, but evidences are not wanting tending to show that formerly the wide fairly level expanse enclosed by the wall was laid out in gardens containing pleasant garden-houses of which only traces remain.

204. The modern town of Futtehpore Seekree occupies the western end only of this large enclosure on the level below the ridge, and partly on the ridge, where the houses rise up to meet the great flight of steps leading up to Saleem's durgah which overshadows the town. It is a stone-built town, for stone is the cheapest building material of the place, but the houses are not worthy of the material, being low and mean looking, as a rule.

The town is reached from the principal gateway on the eastern side by a long open road which passes through the centre of the town, forming its principal bazaar road, and is continued for a short distance to a gateway to the west, for the town is pretty close to the wall on that side.

This roadway, where it passes from the eastern gate through the open land to reach the town, is altogether unmade and undrained, and presents the appearance of a straight track of sand in which angular pieces of stone are hidden, and as this is the way by which all the traffic to and from the Agra city passes, the state of this half mile of roadway must be a cause of great inconvenience to the people and of suffering to many beasts of burden. Where the road passes through the town, a very great improvement appears, for during the past year the greater part of it has been paved with well cut blocks of stone—the large surplus balance of income in hand, which is noticed at the commencement of this Statement, having been very wisely utilized for this purpose—and, when the paving is completed, Futtehpore Seekree will contain a durable centreway well drained on both sides, and altogether better, perhaps, than that of any town I have seen. The bazaar is long, straight and fairly wide, and will be immeasureably improved

by this paving, judged by the miserable state of the roadway where the paving had not commenced. The shops are good, and a considerable amount of business in grindstones, excavated from the neighbouring ridge, and in cotton carpets manufactured in the town, is transacted at Futtehpore Seekree. Also a considerable through traffic from the towns of Bhurtpore to Agra exists here.

The town, long and narrow, presents a much neglected appearance every where off the centre roadway, no attention has been given to its drainage, even the drainage of the new roadway has been directed beneath a culvert into the serai. Filthy unswept places and collections of refuse were seen on all sides, jungle growths amongst ruined walls in neglected enclosures were plentiful in quiet parts behind. The outskirts were seen to have a much broken surface, nowhere drained, everywhere filthy with scattered refuse, in some places with manure heaps near to the houses. The narrow ways amongst the houses were characterized by a sunken surface, hard beneath, but carrying deep layers of dust which would be mud whenever rain falls. The west end of the town, in particular, its general surface being somewhat lower than the rest, would be likely to suffer from this cause, and, indeed, the inhabitants complained that in times of rain that part was all miserable with mud. The Koormies' quarter was noticed to be particularly filthy, its atmosphere very unpleasant, the results, principally, of housing many donkeys at night in little rooms, seven donkeys were seen in one room where there was only just room for them to stand.

All the wells actually in the town contain brackish water, indeed sandstone underlies the town, and wells not sunk deeply into it could not be expected to contain sweet water.

Fortunately, both on the east and west sides outside the town, a well so made is in existence, and from these the townspeople take their drinking water,—Ekram Bagh well to the west, the Hukeem's well to the east. Both were noticed to be well kept and admirably made. The Hukeem's well, made originally by the physician who owned the ruined baths near to it, is especially noticeable as a great work, its cavernous bottom blasted 50 feet down into the rock until a spring was reached which suddenly filled the well with sweet water. Many years have passed since this occurred, but the work was so well done that on the day of my inspection the well contained 40 feet in depth of water as sweet to drink as man could desire.

The serai at Futtehpore Seekree, well situated as regards the travellers' convenience, beneath Saleem's durgah, is one of the great serais of which so many were built in the times of the Emperors. Once grand, its stone-built rooms perfect, with handsome front and deep stone eaves; now sadly debased, the rooms partly filled with earth so that only about two-thirds of the height of the door-sills is above ground, the eaves broken, the four gateways ruinous. The wide roadways shaping a cross, unmade, broken, the drainage of the main road of the town of design turned into one of them to find its way out as best it may; its own drainage uncared for, so that the water has cut for itself a way beneath the door-sills of the gateways; a great ruin heap at one place; quite a number of dhobees and oilmen settled in the place as permanent residents; few of the old trees left. I was glad to notice that at one place the roadway was being repaired, but altogether this serai witnesses so forcibly to the wisdom of design in old days and the folly of neglect in later times, that it is quite impossible any person of ordinary intelligence, who might have to rest there for a time, could fail to think of the difference.

The public buildings are the thannah, well situated in the centre of the town, its lock-up ventilated by a grated window; and the dispensary, which appeared as a cell-like room with a broken roof.

205. Last year the people of this town were much troubled by small-pox which, however, was prevalent in most towns, but especially so, judged by the complaints of the people, here, and perhaps this town might offer a fair field for strenuous endeavour on the part of the vaccination officers.

In past years, the townspeople have been great sufferers from fever disease, due, it was thought, to a very considerable accumulation of water northward of the sandstone ridge, bunded up by design for irrigation purposes; and probably this was the true cause of the sickness, for since the collection of water in this way has been discontinued, and the land of the former extensive jheel which resulted, brought in great part under cultivation, the people have suffered much less from fever, as they readily admitted.

206. I think Futtehpore Sekree much needs improvement, it is a place much thought of by our Mahomedan fellow subjects, a place to which a continuous stream of visitors passes; on the 27th, 28th and 29th days of Rumzan, towards the end of December, many people collect here from the surrounding neighbourhood to bring gifts to the tomb of Saleem, which are received by the remaining descendants of Saleem, who keep the tomb very carefully. This assemblage is called the fair of Rumzan and is computed to number some 12,000 people.

The most necessary improvements are; the making of the roadways, which, I should think, with so much broken stone lying ready to hand in the millstone quarries of the ridge, would not be difficult or expensive; the drainage of the town and its outskirts by providing one or two properly directed surface cuttings; the establishment of a more perfect conservancy, the town and its outskirts being thoroughly cleansed, ruins and jungle growths removed. Public retiring places, properly managed should be provided; manure collected at a greater distance.

To bring this about it will be desirable to increase the number of public sweepers employed, which has been lately reduced from ten to four, a measure of economy which furnished the resident police authorities with a ready excuse for the neglected conservancy of any place notably impure.

The Serai merits attention. It was said to be nuzzool property and is therefore perhaps more especially fit to come into the careful keeping of the town authorities. By intelligent endeavour it might readily be restored to a state which would at least merit the gratitude of travellers.

KOTLAH.

Inhabitants, 7,120.

No house-tax.

No public sweepers.

207. I inspected Kotlah on the 31st of January. It is a town of small size and little importance, inhabited mostly by cultivators. It contains 15 brick-built houses, all the remaining houses being mud-built. Its site is much raised, so that the town may be said to occupy a low hillock, at the highest point of which is a Thakoor's fort, the residence of a Ranee who is mistress of the place, her husband being dead. The fort, which is entered by two fine gates, consists of a square solid brick-built house much raised up on a platform of earth, and surrounded by high mud walls with corner towns encircled by a wide ditch. The houses of the town crowd round the fort down to the base of the hillock, and where they end their walls are so arranged as to form a wall to the town which is entered by four gates which can be closed at night to shut out thieves and animals.

The Ranee appeared to be the principal if not the only authority in the place.

The bazaar is a short narrow road leading up to an open spot where market is held on Tuesdays and Saturdays.

The common serai consists of two open places near to one of the gateways, but visitors to the fort are lodged in the courtyard of a handsome thakoordwara which fronts the fort, and in the pleasantest part of the fort building itself, two rooms, properly furnished, are set apart for European visitors.

The School-house has been allowed to fall into ruins, so that no school assembles there.

The town contains two large brick-work wells and several unmade wells, but the water of the town, as a rule, is brackish, and the people drink mostly from a well just outside the town to the south. This well was seen to be in good order, the surrounding site shaded by a great peepul tree, and the business of water-drawing there seemed to be continuous. I think it is to be regretted that nothing has been provided to prevent the peepul leaves from falling into the well.

208. The preceding is an account of all the more public important places in the town. For the rest the town is a filthy, uncared for place. Its roads and ways are all broken. The atmosphere amongst the houses was everywhere impure, and especially from the results of decomposing urine.

Some corner places were seen to be remarkably filthy. The neighbourhoods of the most used wells in the town altogether neglected. No arrangements for drainage of the town site exist anywhere, so that, after rain, all the ways are turned to mud. But the natural slope of the site in all directions prevents anything like flooding, and the excess of rainfall runs off readily to the Seyngur Nuddee, about a mile distant, to the north.

209. Kotlah is, indeed, a town in which the inhabitants, so long as they do not offend in great things, seem to do each pretty much as he pleases. The town is much isolated, there is no good road to it. The zemindars pay three chowkeedars to keep watch at night, and there their interest in the welfare of the place ceases. I think there can be no resident police. The Ranee, and Buneeas of which two or three are rich men, evidently do nothing towards the improvement of the town, which presents a general appearance of unwholesomeness, only to be accounted for by the neglect of many years.

PINAHT.

Inhabitants, 6,124.

No house tax.

210. I inspected Pinaht on the 4th of February. It is a remarkably interesting town, built where the ravines of the Chumbul river commence, and about two miles north of the river itself. The land on which the town stands is much cut into small table-lands divided by ravines with almost perpendicular sides, and the country, between the town and the river, is cut in like manner into a thousand pieces, so as to present a remarkably wild appearance at all times, but seen in times of storm or changing lights it assumes an appearance of extraordinary grandeur and solemnity; and this peculiarity of their country would seem to have influenced the inhabitants of Pinaht, who appeared to be more robust, and to have an air of greater manliness and independence than the people of other towns I have seen.

Pinaht is a walled town, the wall built in great part of kunkur blocks and finished at the corners with towers capped by cupolas. The wall, however, is now broken in places, and two of the cupolas have fallen down. Formerly it was entered by two gateways. A third way in has recently been provided, and this is now the generally used entrance way, and from it a wide kunkur-made road, to be afterwards mentioned, passes through the town from north to south to reach the castle, which forms the southernmost boundary of the town, and completes the fortifications on that side. Outside the town, near to the north gate, is the serai, an oblong inclosure surrounded by thatched huts, shaded by good trees. East of the serai are the remains of a gigantic tank, built many years ago by the Bhudawur Rajah of those days, a tank fully 300 yards square, with sides of masonry 3½ feet thick, the corners and flights of steps ornamented with cupolas, all now much injured by time and neglect. The tank contained *little* water, the waterways to it being closed up with earth and refuse collections, and men were seen to be making bricks of the condensed earth at the bottom of the tank, which is much cut into holes.

211. Immediately to the East of the town, and divided from it only by a wide ravine, is the Poorunpoorah Mohullah, a separate little town, also defined by its wall. It consists of 95 great old houses of kunkur blocks, crowded together so as to fill the surface of its own small table land, a deep ravine encircling it, except to the north side where the high wall with its narrow gate bars the way. It was founded by Chobe Poorun Mull, a powerful Thakoor of days gone by, who brought the kunkur from the banks of the Chumbul. His descendants now live in it, but do not, or perhaps are not able to, keep the old place as it deserves to be kept. Inside, Poorunpoorah is characterized by narrow broken ways dividing fine old houses, which but for their kunkur walls must long ago have fallen down from neglect. Drainage and cleanliness are provided for by the peculiarity of the site, excessive rainfall runs at once, at places provided for it, into the surrounding deep ravine, the sides of which are almost perpendicular, and refuse of all kinds is thrown over into the ravine. A fine old thakoordwara just outside the Poorunpoorah entrance gate, once, doubtless the well kept resting place of honoured guests, was seen to be much neglected now, partly ruinous, undrained, its courtyards overgrown in places with rank vegetation.

212. Pinaht itself was the place of residence of the Bhudawar Rajahs, now removed to Kunchaura on the Jumna, where the present home of the family is noted for its well selected site and picturesque appearance, in which respects, however, the abandoned home in Pinaht is not much inferior.

Entered from the North side, which indeed is the only convenient side of entrance, the town is traversed by a kunkur roadway, at first remarkably wide and straight, with shops on both sides; about the middle it narrows with a turn eastwards, the shops still continuing, and then passes aga in southwards to reach the gunj and Chandnee Chowk, a square market place, entered by a gateway at each either end, and surrounded by high shops of masonry, only two of which, however, are let, for experience apparently has shewn that the business of the place will not support such a fine gunj. It is the Rajah's property—seemingly not long built, the shop verandahs are fallen down. Its surface, except where the kunkur road passes through it, is depressed, broken bricks and refuse lay about, poor weavers appeared to have settled in the shops. The good trees planted upon it in properly selected places, were seen to be neglected, and general ruin threatened the place.

Leaving the gunj the road passes up to the entrance of the fort which bounds the town to the south-east. Now ruined and abandoned, enough remains to show how fine a residence this fort was, not very long ago. Built throughout,—walls, great gate, inner buildings, gigantic well,—of solid masonry, and raised up on the highest site of the town, it commands a view of the Chumbul ravines, the river in the distance, and Gwalior territory beyond, very perfect of its kind.

213. The houses of the town, generally, are mean looking, often ruinous but many durably built. Off the new main road which is well raised, made, and drained, the roadways amongst the houses were seen to be all uncared for, all the refuse and sweepings generally of the town were seen to be stored in the town itself, at waste corner places or within the enclosures of the houses, so that filthiness seemed to abound in all parts and to be accepted as a matter of course by the inhabitants. No tax of any sort is raised in the town for Municipal purposes, and no public sweepers are employed The water supply of the town is obtained from several remarkably fine wells which have been sunk to a depth of 75 to 100 feet. Those most frequented were seen to be well situated, away from the houses, in the bed or on the banks of ravines which encircle the town, and were furnished with high raised mound-like borders. The water of the town was greatly praised by the people for its, as they expressed it, strengthening properties.

214. The drainage of the town site might be made most perfect by reason of the convenient ravines, and indeed, practically, excessive rainfall removes itself by way of the ravines everywhere.

A new thannah is being built off the bazaar road where it is widest at its northern end. Its site is well raised. Fronting it is a wide open space which might well be fashioned into a pleasant market-place, already trees are planted on that side of the road, but the surface of the open space was much littered with broken bricks, old building material, and rubbish generally. Practically, market is held at this wide part of the road every Friday and Wednesday, the people prefering it apparently, for that purpose, to the gunj.

Where the road turns to the east the drainage from the thannah side is carried under it by means of a large, much broken drain of brickwork. This drain much needs repairs and improvement. It was seen to be choked with impurities, and forms a very unpleasant and unwholesome feature in a place so frequented as this road is on market days.

215. Concerning latrine arrangements, nothing of that kind is in existence here, nor are the people controlled in any way as to the places they retire to, but the established custom is for the people to go out to the ravines which neighbour the town, and nowhere in the town was any unpleasantness from this cause apparent.

216. Formerly a school-house existed in the town, but it fell down in the last rains, and now school is held on a platform imperfectly shaded by neem trees, outside the town, where 62 boys were seen assembled.

217. From this account I think it will appear that Pinaht has seen prosperous days, followed by a period of misfortune to its principal inhabitants, and consequent neglect. The first steps towards improvement have been already made, not, I should suppose, at the expense of the inhabitants. Perhaps now it may not be unjust to require help from them towards the establishment, at least, of a better conservancy within the town limits.

If by any possibility the gunj could be preserved from ruin, its trees cared for, and the enclosure brought into use as a market place, it would be a work of great merit, for which the rising generation might have cause to be thankful. Certainly its site should be more carefully kept, happen what may to the buildings which surround it.

Bah.

Inhabitants, 5,365.

Chowkeedaree, Rs. 18 per mensem.

No public sweepers employed.

218. I inspected Bah on the 3rd February. It is a town through which a considerable trade passes from the towns of Gwalior territory to the towns of the Doab, and especially to Sirsa Gunj in the Mynpoorie district. Bullocks and camels are employed for the purpose in considerable numbers, and Bah is rather a busy town, being much frequented as a halting place. Also it is one of the principal places for the receipt of customs at the great customs' hedge which divides these provinces from the independent states, a European Patrol residing at Bah.

219. The town has four gateways and the houses are so arranged at the outside as to form a fairly perfect wall about it, but the gateways have no gates, and the town may be entered at many places besides the gateways, by people on foot.

It is a small town but in many respects is far in advance of larger places. It contains many masonry square-topped houses, and has been opened up in comparatively recent times by a roadway from east to west, and a roadway from north to south, so that the two roads have a cross-shaped ground-plan and cut the town into four parts. The roads are for the most part lined by good shops with handsome masonry fronts. This great improvement was said to have been made by Mr. Jackson, 14 years ago; its benefits are very apparent now, and will be more so when the roads are made with

kunkur and properly drained, a work in course of completion on both roads. The roads are not of any great length, and the town may be quickly traversed in every direction.

Starting from the centre, the road to the south leads to the gunj on that outskirt. The gunj is a remarkably fine one for a town so small as Bah, a wide open square space surrounded by shops, and, in some places, quite fine masonry houses; a good well in the centre; a stone-built temple, with handsome carved doorway, in one corner; the surface shaded by old trees, but much depressed in places, and the roots of the trees uncovered. At the south side also the shops were seen to be ruinous.

The road to the east leads to a small serai there, an open space between the two gateways, but not otherwise noticeable.

The road to the west leads to the school-house, a mean mud-built structure, just beyond the west gate. The school-house was seen to have been whitewashed lately, but the floor inside was littered with dust and rubbish, and the school of 60 boys was assembled in the verandah. A large serai inside the town opens off this west road.

The road to the north passes to the gate on that side; outside the gate the land is much depressed and the road is continued by earthwork to cross the depression.

220. As regards the conservancy of the town, the four main ways were seen to be as fairly kept as could be expected, seeing that they are now being made with kunkur. The back lanes were seen to be filthy in the extreme, in many places with open cesspools, and small drains overflowing with impurities; this was especially noticeable in Agur Wallee Mohullah. Manure heaps were seen in places amongst the houses, and many corners were unpleasant from decaying urine which saturated the ground. The depressed surface, just outside the north gate, was seen to be used as the public latrine of many people, and presented a very unpleasant appearance to visitors entering the town there.

221. Concerning its drainage, the main roads have been furnished with side saucer-drains, but no measures have been taken to ensure that the water they carry shall run out of the town. Such small drainage cuttings as existed for this purpose were seen to be choked with earth, but for the most part no cuttings exist, the water finding its way out as best it can, or not at all. This is well seen at the east end of the town, and again to the north side, where it may be seen that the excess of rainfall is allowed to flow through the large serai enclosure to reach the depressed surface just outside the town there, which must present for some months in the year, a wide surface of stagnant water. The perfect drainage of this town might be easily effected in the direction of the Jumna ravines, which commence at less than a mile from the town on the east side, and if, at the same time, the depressed ground to the north could be drained, its surface a little raised and cultivated or planted with trees, it would be a measure well calculated to improve the sanitary state of the town.

222. Concerning its water supply, this is of course furnished by wells. The inhabitants take their drinking water mostly from five or six fine brick-built wells, situated in different parts of the town. The water is about 80 feet from the surface and was praised for its goodness. These wells were seen to be in good repair and properly protected from the entrance of surface water.

The Police office, the only Government institution in the town (the Customs' office being outside to the south) was seen to be in good repair and remarkably well kept, its courtyard planted with young neem trees; the lock-up, a fairly ventilated room with two windows and a grated doorway. Altogether this thannah presented an appearance of order and cleanliness well worthy of imitation in the town itself, and its condition, I thought, reflected much credit on the Sub-Inspector who manages it. If that officer could be induced to interest himself in the improved conservancy of the town generally, the necessary labour being provided, I think good results would be likely to follow.

CONDITION OF THE TOWNS OF THE MUTTRA DISTRICT.

223. The towns of the Muttra district of more than 5,000 inhabitants are:—

	Inhabitants.
Muttra, ...	51,540
Bindrabun, ...	21,500
Juleysur, ...	13,531
Kosee, ...	12,410
Mahabun, ...	6,933
Chuttah, ...	6,060

Of these, Muttra, Bindrabun and Juleysur are governed by Municipal Committees.

MUTTRA.

224. Municipal Income for the year 1868-69 Rs. 65,925. Of this the following sums were expended on improvements, *viz.*:—

For conservancy, ...	2,163
„ lighting, ...	4,487
„ stone pavements, ...	16,700
„ public latrines, ...	512
„ watering trees and streets, ...	575
„ building offices and walls, ...	4,431
„ repairs to roads and buildings, ...	4,813
„ temporary shed for small-pox patients,	104
„ vaccinator, ...	270
Total, ... Rs.	34,055

The percentages of expenditure stand thus:—

Improvements, ...	51·8
Police, ...	20·4
Collecting, ...	8·8
Miscellaneous and refunds, ...	5·5
Balance in hand, ...	13·5
	100·0

225. I inspected Muttra on the 14th and 15th of February. It is a city of considerable size, situated on the west bank of the Jumna, and its importance is so great in the eyes of the Hindoo population of India generally that, perhaps, no place in all the land is held in such esteem, so reverenced, and to no place in the country do so many pilgrims come from all sides, at all times of the year, as to Muttra. Its sanitary state is therefore a matter of more than usual importance. Muttra too is a city in which many rich men live, kings of independent states have houses there, rich brahmins, well to do merchants, are numerous. Fine temples and thakoordwaras abound. Its bazaars, sufficiently alive in the morning time, literally swarm with people as the day progresses.

The site of the city is all that could be desired from a sanitary point of view. It is fairly raised above the Jumna which flows close past the city beneath a line of fair ghats and temples. In old times it must have been land cut by wide ravines into low hillocks and shallow valleys, but now all is so closely built upon that this is not readily apparent. The houses cover the valleys and hillocks continuously, so that the city rises and falls nearly everywhere excepting the part quite close to the Jumna, and this peculiarity of the site would permit of its perfect drainage without difficulty.

The houses of this city are in greatest part brick-built, many double storied. Stone enters largely into the construction of the houses which stand on the principal roadways

or form the principal bazaars—grey sandstone, from Roopbas in Bhurtpore, elegantly carved, for Muttra possesses perhaps the best stone carvers in the province, and a spirit of rivalry concerning the excellence of the carvings produced seems to be established amongst neighbouring householders, especially in the matter of highly ornamented overhanging verandahs, so that streets and places of beautiful appearance are not uncommon. This excellence of construction culminates in the Holi bazaar, a street worth going far to see, and which to the Hindoo mind must, I think, possess the charm of perfection.

226. The wide kunkur-made road to Deeg skirts the city on the south side, and forms an important outskirt there. The part of this road in connection with the city may be described as passing from the new school-house, to be hereafter mentioned, to the Kuttra Kesub Deo mosque, a thakoordwara of other days, converted into a red sandstone mosque by the Emperor Aurungzebe, once very fine, now neglected and partially ruinous. This road is remarkably wide, well made and drained, and lined for a good part of its length by well built shops, and a market place opens off it on each side. The market place to the south, which belongs to the noted Seith of Muttra, is remarkably good, its wide enclosure planted with trees, its surface drained with well made saucer-drains and cleanly kept. The market place to the north, which belongs to Roshun Lall, is smaller. It was noticed to be ill kept, its surface filthy with refuse, and especially the neighbourhood of its public well so neglected as to be unpleasant to approach. This road, with its shops and market-places, may be considered as the modern part of Muttra. There can be no doubt that it serves a good purpose in relieving, in some measure, the crowded state of the city, which I think, tends to increase in the direction of this road.

227. The city is entered at right angles from this road, at about its centre, by a rather narrow way which leads direct to the Holi bazaar, the principal street of the city, and about the commencement of the entrance way it is proposed to erect a carved stone archway, to be called Bhurtpore gate, and to serve as a fitting entrance to the beautiful street beyond. The Holi bazaar extends from the Bhurtpore gate to the famous brick-built mosque of three domes and four great minarets, high raised on a made platform, about the the centre of the city, and so built in the midst of this Hindoo city in the times of the emperors, with what seems now a questionable taste. Nevertheless, there is nothing in Muttra which can compare for architectural beauty with this mosque which is seen to be brick-built now, but was once covered with encaustic tiles of gorgeous colours set in patterns of flowers, bordered, of which only patches now remain.

The Holi bazaar is paved throughout with a stone pavement cut into grooves, and properly drained by stone made saucer-drains on each side, a durable pavement of the best kind, the work of the Municipal Commissioners lately appointed. The work has been performed in a manner worthy of the street, and has given the finishing touch to it so much required as a fair way binding the two picturesque sides. From a sanitary point of view nothing could be better. Its grooves give safe foot-hold to man and beast, and serve as gutters for the immediate removal of rainfall to the waterways at the side.

It was seen to be scrupulously clean, its waterways as carefully swept as the intermediate surface, and altogether I think this pavement is a striking instance of improvement in the best direction, a permanent good to the town, a source of pleasure, and therefore gratitude, to its thousand visitors.

Beyond the mosque this principal roadway passes to the Shahgunj gate; this part is narrower than Holi bazaar, of considerable length, and a busy bazaar almost to the end, but it is not paved. The roadway was seen to require attention both as regards its surface and its drainage.

The houses of the town beyond the principal roadway on each side are divided by the usual narrow ways, many of them were seen to be paved with flagstones well laid down

and providing a perfectly smooth surface from side to side, and all so treated were seen to be remarkably well kept, and to present a wholesome appearance rarely seen in the same places of other cities. The Municipal Commissioners cannot, I think, do better than to persevere with this plan until all the lanes are paved. It will ensure two things of great importance to the health of the inhabitants, cleanliness, and a dry surface about their houses. If at the same time it could be determined that all paved ways must be pretty straight, but never zigzag, a third benefit of freeer passage for moving air, would be conferred upon them. Several lanes were seen to be paved with bricks, the work apparently of some former period. In many places the bricks used for the purpose were seen to be soft and bad. Pavement of that kind is worse than useless. It permits water to saturate the underlying surface and afterwards causes a retention of the moisture beneath, for many days.

228. The conservancy of this city is very carefully managed, and nowhere could any much neglected place be found. The system in force, except perhaps for that part of the city which neighbours the Jumna, is the carrying out of impurities by hand and in carts to places set apart for their reception in the outskirts. This important business is controlled by 12 well paid sweepers, who are servants of the Municipality. These 12 men direct the labours of some 500 sweepers who are paid by the householders.

The result is a satisfactory state of cleanliness, extending to out of the way places, to which I witness with much pleasure.

The same method of procedure might perhaps be established in other large cities with advantage.

There are 18 public latrines which stand on different sides of the city in the outskirts, and were said to be much frequented. The one I inspected off the Deeg road was seen to be a broken down ruin little used as a latrine, and I think it very likely the great majority of the inhabitants retire to the ravines and other more solitary places in the neighbourhood of the city.

Certainly nowhere in the city, or quite near to it, could any unpleasantness arising from this cause be noticed.

229. Though I can safely commend the conservancy of the city itself, I am not able to think well of the plan pursued with regard to the disposal of the impurities collected.

At the time of my inspection the principal place appointed for the deposit of such matters was a piece of rather high ground immediately adjoining the Deeg road, and perhaps 400 yards from the houses of the city, in a south westerly direction. Here a large space was seen to be enclosed by a low wall, and inside this space the sweepings of the city of every kind were thrown down to decompose, so that the decomposed collection of many days filled the enclosure and threatened to overtop the wall.

The end of the enclosure farthest from the road seemed to be preferred for the deposit of latrine sweepings, and there a widespread collection of quite unchanged fæcal matter was seen, which, the wall being broken behind, a flock of several half starved sheep were greedily eating. This method of disposal cannot be too much condemned, because by collecting unchanged impurities in one place, their effect, as a cause of ill health, is likely to be more potent than if they had been left scattered as first found, and certainly no place in the world perhaps could be more abominable than the place above described, towards the back part of which no one of the native officials who accompanied me at my inspection would go, because of the over-powering stench. It will be scarcely necessary I should mention the impropriety of permitting sheep to live so short of proper food that they will eat impurities of the kind mentioned, a cruelty which would bring its own punishment, if the people who own the sheep had to eat them, but which results in causing ill health to many innocent people.

This sad place has, by experience of the results when westerly winds blow, been found too near to the city, and a new place for the same purpose, situated about half a mile west of the city, amongst ravines, was being fashioned at the time of my inspection; its surface being dug down to form a great shallow pit-like place, around which a close border of babool trees is planted. This place, inasmuch as it is farther away from the city, better enclosed and more secluded, is preferable to the old place, but, from a sanitary point of view, it is but little less hurtful. The wind will travel from it into the heart of the city faster than any man can run, and I cannot too often repeat that impurities of every kind, but especially animal impurities, should be placed to decompose under the ground in small quantities at one place, and if possible with the help of vigorous living vegetation. This can best be done, as regards the impurities of a city, by the establishment of a Municipal Farm in which food for cattle only is grown. And the establishment of such a farm on which impurities may be systematically buried in trenches, and the coarse grasses cultivated on the land so manured, is a subject which may be safely commended to the best attention of the Municipal authorities at Muttra.

In the part of the city which neighbours the Jumna, impurities are removed by means of underground drains, which terminate on the river's bank amongst the fine ghats, temples and bathing places there. These drains, and especially one remarkably large sewer, were discharging a slow current of black fætid sewage into the river, which at that time consisted of only a quite small and gently moving stream close under the ghats.

Several of the inhabitants, some very respectable men, complained to me of these drains and sewer as a great nuisance, saying that their contents polluted the water and spoilt the pleasure of bathing. The justice of the complaint was sufficiently apparent, and especially at the Khunskhar ghat and at Gheea-Mundee.

I should think this must be a serious cause of ill health; the resulting impurity of the atmosphere at the places where the drains end was very apparent, and must affect many people, for the houses of the city come down to touch the ghats, and it is at least very necessary the sewage of these drains should be intercepted as it approaches the ghats, and directed into the river at a point below the city. I need scarcely say this would be a work of some importance, but for men who can provide a pavement like that of Holi bazaar, the construction of the half mile or so of sewage-way required should present little difficulty.

230. The supply of drinking-water at Muttra is procured from wells situated either at the river's margin or in the outskirts of the city. The well-water of the city itself is, as a rule, brackish, or impure with an unpleasant taste. The result probably of the saturation of the site of the city, generally with the fluid impurities of many generations of men and animals, for Muttra is an ancient city.

The supply in the great public wells on the river's margin is practically exhaustless, and consists doubtless of water filtering direct from the river's bed. The great majority of the people drink from these wells, and this, I think, may be urged as another reason why the city sewage should be diverted from the river everywhere above the town.

231. The drainage of excessive rainfall to the Jumna is provided for in many places by means of open, wide, stone gutters, and, from what I saw and heard, I do not think water stagnates anywhere in the city, in the rains, but on this point I cannot speak with any certainty.

232. It will serve no good purpose to lengthen this Statement by a description of the public or Government institutions at Muttra, all of which, with the exception of the jail, I visited, and all of which were seen to be very well kept and situated. The school, however, merits a few words as a well built, rather good looking house, well placed in open ground outside the city. The site properly laid out and planted with young mangoe trees and the accommodation inside the house all that could be desired for a school of 170 boys, who were seen to be properly seated so as not to be overcrowded, carefully

clothed, and very attentive to their lessons, the business of tuition proceeding with a method and order very much like that of good schools in more civilized countries. The school-master, a polite and very thoughtful looking man, whose name I have forgotten, complained of only one thing as regards the sanitary arrangements of his establishment, namely, the smallness of the boys' playground at the back of the school-house.

Certainly, the school land there is altogether too narrow for such a purpose. A wheat field, said to be the property of the Rajah of Bhurtpore, adjoins it. The Rajah might perhaps, knowing the necessity, be pleased to give 30 steps in width of land there, of the same length as the school enclosure, which thus enlarged would contain the space required.

233, BINDRABUN.

Population, 21,500,

Municipal Income for 1868-69, Rs. 22,129.

Of this the following sums were expended on improvement, *viz.*:—

For conservancy, ...	...	...	Rs. 397
„ lighting, ...	...	...	„ 355
„ municipal office,	...	...	„ 1,073
„ latrines, ...	...	...	„ 4,177
„ metalled roads,	...	...	„ 1,261
„ repairs to ditto,	...	...	„ 505
„ vaccinator, ...	...	...	„ 270
„ school-house,	...	...	„ 889
	Total,	...	Rs. 8,927

The percentages of expenditure stand thus:—

Improvements,...	40·3
Police, ...	25·7
Collecting, ...	11·5
Miscellaneous and refunds, ...	2·7
Balance in hand, ...	19·8
	100·0

234. I inspected Bindrabun on the 15th of February. It is a town of Thakoordwaras, Temples and Ghats, situated on the Jumna six miles north of Muttra; and as the spot where Krishn passed much of his youth, is, perhaps, more dear to the Hindoos of India at large than any other spot in the Birj country of 84 square koss around Muttra City.

In a town containing so many buildings of interest as Bindrabun, with its 50 Thakoordwaras, all stone and marble, its 800 small temples, and its mile of stone-built ghats along the Jumna bank, works of to-day; its Brimh Koonth Tank, Muddun Mohun, and Govindeo temples, works of three centuries ago, and by far the best of any; I found it difficult to give a proper attention to the sanitary aspect of the place.

I noticed, however, that the Municipal Committee, who kindly welcomed me at the entrance of the town, are bent on improving Bindrabun to the utmost limit of the means at their command, animated, as I thought, by a desire to make the town more worthy of the high place it holds in public esteem already.

235. Since the Municipal government was established, five well made kunkur roadways have been provided for the opening up of the town, and to give better roadway to the numerous bathing places or temples; and the town has evidently been greatly improved in this way. Gobind Bazaar, the principal street, especially cared for, has a fine roadway lined by good shops and carefully kept in everyway, as, indeed, were all the roadways; even the unmade, depressed, smaller ways were seen to be scrupulously clean everywhere, the business of conservancy being evidently well managed. Neglected cesspools were seen in some places. This important business of roadmaking might be continued with advantage in many places, and especially to provide a wider and better road to the famous Teer Ghât, to which all pilgrims go to visit the Kuddum tree into which they believe Kishn climbed to hide the Gopees' clothes.

236. The site of the town is well raised, and its surface drains readily into the Jumna, excepting at the west end of the town where stagnant water collects amongst the houses, on account of rather high land which bars its passage there. The Municipal authorities were evidently well aware of this and of its harm to the town and people, and were engaged in remedying the evil, at the time of my visit, by cutting a roadway through the higher land, the surface of the road to be at a level sufficiently low to allow the rain-water to run out freely on each side of it.

The only underground drainage of any importance in the town is in Mohullah Hut Koomba, where drains from the houses converge to a small covered tank in the centre of a courtyard, or open space, which also contains a good well much frequented. The drainage tank of the well, and the drainage tank for the houses, were seen to be full of impurities suggestive of anything but purity of the water in the neighbouring well.

237. The well water of the town is good, except, it was said, to the west end. It seems not unlikely that with the proper drainage of the surface there the water may improve.

238. Six public latrines have been recently constructed here, three for women and three for men. They were seen to be well placed on the outskirts of the town, commodious, durably built and carefully kept, and seemed to be visited by many people.

Desiring to see the place of ultimate disposal of the resulting impurities, I was taken to a field quite half a mile from the town, in a retired place behind a brick kiln, and there saw the latrine sweepings, not changed in any way, thrown over the surface of the field to dry up. The owner of the field said he paid the sweeper Rs. 3 a month for this service.

If the owner of the field had provided a shallow trench, such as a plough would make, for each day's supply, covering it up at night with earth, the result, from a sanitary point of view, would have been much more satisfactory.

The outskirts of the town were seen to be remarkably clean, and undoubtedly the latrines serve a useful purpose.

239. Outside the town to the south the new Municipal Office, School-house and Dispensary are built nearly in line, but well divided, the sites open on all sides. The new School-house, where 60 boys attend, is embellished with a pillared front, and affords good accommodation; young trees have been planted round it, but the land surrounding the house very much requires to be drained, as evidently in the rains it becomes swamped with water.

The Dispensary, a little square building with surrounding verandah, the enclosure planted with trees, is every way commendable, excepting that its site also should be drained.

240. JULEYSUR.

Population, 13,531.

Municipal Income in 1868-69, Rs. 11,195.

Of this the following sums were expended for improvements, namely :—

For conservancy, ...	Rs.	484
„ new market-place, ...	„	1,523
„ public latrines, ...	„	1,236
„ dispensary building, ...	„	1,000
„ new roads, ...	„	1,124
„ drains and repairs, ...	„	298
„ vaccinator, ...	„	35
Total, ...	Rs.	5,700

The percentages of expenditure stand thus :—

Improvements, ...	50·9
Police, ...	15·5
Collecting, ...	11·8
Miscellaneous, ...	3·3
Balance in hand, ...	18·5
	100·0

241. I inspected Juleysur on the 16th of January. It is a town of some importance; an old town of which the inhabitants are principally Mahomedans. It contains many very well built brick houses, some ornamented by stone-carved doorways, and the brickwork here generally is remarkably good, smooth, the bricks set so closely and evenly as to present an almost uniform surface. Bangles are manufactured in large quantities in the town, which contains 50 large ovens used for that purpose; carving in stone is also much practised, and altogether it is a busy town much frequented by travellers passing from Agra and the West generally towards Soron and towards the towns of Rohilkhund. Of all the towns I have inspected I can scarcely point to one which has benefited more by Municipal government than Juleysur.

Formerly much crowded, its roads all unmade, its conservancy never thought of, it now presents a much changed appearance, the results of quite recent effort, and the inhabitants in several instances attributed the change more especially to Mr. Fisher's influence and energy.

242. Entered from the South, the town is traversed by a well made kunkur roadway of considerable length, which passes to the Gunj, a large open square with new shops to the number of 122 bordering it, each shop-front formed by a Saracenic arch. The results of this great improvement are very satisfactory, a large open space nearly in the centre of the town is provided by it, the surface levelled and efficiently drained.

From the Gunj northward, the roadway, considerably broader and shorter, is continued to a small kunkur-built bridge which crosses a sandy nullah at the North outskirt of the town. This broader part of the road is the principal bazaar of the town. It is remarkably well made, properly drained by side saucer-drains, and lined on each side by well built shops.

Besides this main roadway, the town has been opened up and improved by a second kunkur-made road which passes from the South-West corner of the Gunj, sweeps round the West side of the town, crosses the first portion of the main road about its centre, to end at the Dispensary on the East side of the town. On the East side, also two other shorter kunker-made roadways have been provided, one leading to the fort hill, the other opening up a crowded part of the town on that side, so that Juleysur can now boast of a very good public thoroughfare in many directions.

243. The drainage of this town also has been very much improved lately. Formerly excessiv erain-fall drained from the West side across the town to the East outskirt where there is a large irregular water-hole, and to the South-East outskirt where there exists a very extensive depression called Saugor Talao. This draining of the water across the town was a very great discomfort, and probable source of ill health; holes resulted which held stagnant water, and the roadways were much injured. By earthworks judiciously made, the drainage of the West side has been turned to the West outskirt to a shallow nullah there, which courses round the North side of the town to reach the tank on the east side. The nullah has been improved, a bridge provided over it to carry the roadway on the North side of the town, and this arrangement has provided efficiently against the old trouble, so that the holes and old waterways across the town, and generally on the West side, have been filled up successfully, and in some places where holes existed a level kunkur-way now passes. I thought at the time of my inspection this was one of the best planned and most efficiently executed improvements I have seen in a comparatively small town. Excessive rain-fall must, however, find its way to the East side of the town, because the natural drainage-way towards a branch of the Sirsa Nuddee lies in that direction, and the excavations, especially the Saugor Talao, are on that side. These excavations when they filled, in former days, drained towards the Sirsa sufficiently to prevent any flooding of the town, but a few years ago a Rajbaha of the Ganges Canal was raised between them and the Sirsa, and the result was that Saugor Talao, in times of heavy rain, overflowed on the town side, and the people suffered very much from the flooding of the town, both in property and health, fever becoming very prevalent and fatal in the autumn months. I enquired very carefully about this, and came to the conclusion that fever disease troubled the people a good deal before the Rajbaha was made, but that the trouble increased after the Rajbaha was made. The defective drainage has been remedied in a great measure recently by the providing of more perfect waterway beneath the Rajbaha, about a mile and a half from the town, and the town was said never to be flooded now; but last year, in October and November, fever was so prevalent that the Tehseeldar procured quinine to distribute to the people, and I think the amount of stagnant water which collects on the East side of the town is still excessive, and that the inhabitants will be likely to suffer from fever until such efficient drainage-way has been provided from the Saugor Talao to the Sirsa, as shall prevent the increase of the talao to an extent much exceeding its ordinary cold weather size. This is a matter of very great importance to the general welfare of the inhabitants, and may well engage the attentive efforts of the Municipal authorities.

A sufficient waterway once provided from the Saugor Talao to the Sirsa Nuddee, the remaining water-holes on the East side may be safely drained to the Talao, and in this way the East outskirt may be prepared for improvement, the excavations there properly fashioned, their dimensions curtailed, and perhaps some valuable land recovered to cultivation. But, of a certainty, the general health of the people will be improved by these measures.

244. Although the greater thoroughfares have been so admirably improved, still much remains to bring the public ways of the town to a creditable state in some places. In this respect I would point to the state of the narrower ways at the North side of the town, where they were seen to be broken waterways into some of which drainage from the saucer-drains of the principal roads was turned to lose itself mostly in mud. Also to some of the lanes on the west side, where not only the surface was seen to be much broken, but refuse was seen to be lying in many places at the side of the way, by which the atmosphere was made very impure; and to the South many broken ways demand attention, both as regards drainage and conservancy.

245. The practise of allowing the newly constructed saucer-drains to end suddenly so that the water they carry might flow abroad into any by-street or waste place, seemed to be established as a rule at Juleysur. This practise defeats the best object of improved surface drainage, namely, the bettering of the health of the people who live on the

site drained, because stagnant water, or drying surfaces of mud, are as hurtful in this respect in back streets or places, as in front streets or market places, and it is greatly to be desired that whenever in any town a surface drain is made, it should be in communication with the main channel leading to the natural receptacle for drainage, which, at Juleysur, is the Saugor Talao.

Some open spots exist in this town which might be reclaimed with great advantage to the health of the people. I would point especially to a place of this kind in Punsaree Mohullah, where a much frequented well, surrounded by an undrained filthy surface, is situated. The surface slightly raised, drained and planted with trees, would provide the necessary change and reclaim the place to respectability.

The more efficient control of the butchers' quarter is also required. Fairly well situated at the east outskirt, the slaughter-places are insufficiently screened, so that passers by can see the butchers at their work, as I saw them slaughtering three buffaloes; also the little meat market which adjoins the butchers' houses is altogether an abominable place, mud-built, confined, filthy in many places from neglected refuse, and, at the time of my inspection, tenanted by such a crowd of flies that nothing else could well be seen within until they had settled down, and then only fly-covered meat and walls. I should think in a place to which so much stone comes a stone-paved meat market might be provided, certainly improvement in respect to this matter is greatly required at Juleysur.

246. There are three principal serais at Juleysur. One to the east, a small oblong enclosure surrounded by mud-built rooms for travellers who were numerous. The courtyard not properly drained, levelled, or made, is shaded with trees, but the trees are neglected, and there is no well in the serai.

The second, to the north, a small place, the enclosure irregular in shape and much confined, but containing a good well.

The third, opening off the main street, has also a courtyard of irregular shape, undrained, and littered by broken bricks in heaps.

Altogether the accommodation for travellers is not suitable to the purpose and might be improved with much advantage.

247. A new Dispensary building was approaching completion at the time of my visit. It stands at the east outskirt, on the very borders of the irregular water-hole there, so that, the site being low, the Dispensary has very properly been raised on a high plinth. When the building is completed the low site surrounding it must be raised by earthwork, but this cannot be done with permanent success until the water-hole is drained sufficiently towards the Saugor Talao to prevent any great rise of its water. Nothing short of this will save the Dispensary site from injury or make the Dispensary a proper place of residence or resort.

The Dispensary is very durably built, and has a stone roof supported on well cut beams of proper scantling, so that it is likely to last for many years and require little repair. It is noticeable for the great depth of the verandah and resulting smallness of the rooms. This, however, I think of little consequence provided the verandah can in any way be properly screened from public view. But I may, I hope, be excused if I record here, that extended experience of the thoughts and habits of the inhabitants of this country is bringing me to think that a Dispensary having for its leading feature an inner shaded courtyard, would be more acceptable and attractive to people who may be sick than the now fashionable form of naked building to which light enters so freely, and in planning which the privacy of retirement, so dear to a sick man, seems to have escaped attention.

The fort in this town is now essentially a great mound of earth, from which saltpetre is made. It is situated well within the town limits, on the east side, and the Tehseelee and Thannah stand on the top of it.

The Tehseelee was seen to be well kept, its office commodious and ventilated.

The Thannah is a ruin, the roof having fallen down because of faulty design and construction. Intended to be an arched roof without beam, it was seen to be made of pipe-tiles of small diameter set on edge in lime, and apparently fell down soon after the support on which it was constructed was removed, the destruction being probably hastened by the contraction of the supporting mud and brick walls which must shrink as they dry.

248. Ten public latrines have been provided in the outskirts of the town. They consist of good sized unroofed enclosures, and serve very well to prevent the defilement of any place in or near the town, indeed the town and its outskirts were noticed to be particularly free from the impurities for which latrines provide a recognized place of deposit. The latrines were noticed to be in good repair and well managed. I was informed that the resulting impurities were buried, but was not able to assure myself of this by actual inspection of the places of ultimate disposal.

249. To the east of Juleysur, and coming within the Municipal jurisdiction, there is a separate mud-built town called Kaleelgunj. It was seen to be cleanly kept, and the manure heaps, for it is mostly inhabited by cultivators, are kept outside the town. Fever is unusually prevalent here in the autumn months, and the people of this town would be more especially benefited by the better drainage of the Saugor Talao.

250. The School-house at Juleysur was seen to be mud-built, with a poor thatched verandah on one side. Its courtyard is small, shaded by one crooked neem tree, and its drainage not cared for.

Ruined houses are not common in the town, but on the north side some may be found which the owners should be required to remove. There are several small mosques in the town, some ruinous from age, but there is no really good mosque anywhere, a very unusual circumstance in a Mahomedan town.

The Naj-ka-Mundee, or grain market, is a small open space communicating with the principal roadway from north to south. It is surrounded by mud-built shops, contains a few good trees, and young trees have been recently planted. It is drained by a deep drain or cutting which runs from it; such deep drains should not be allowed in any town, they offer receptacles for impurities and cannot be properly conserved without great expense and trouble.

The Purao, or halting place for bullock carts, is in the town on the north side. It is a bad Purao, not drained or its surface in any way shaded. Puraos should, I think, be established always in the outskirts, and a well made properly situated Purao is much required at Juleysur.

251. The new Gunj is drained by a large underground drain which passes eastward to join the water-hole near the Dispensary, there it ends in an open cutting of some length. This cutting was seen to be ill kept and contained much refuse from the butchers' quarter and neighbourhood generally.

A wide well made saucer-drain to replace this covered sewer and cutting, and extending from the Gunj to the very margin of the water-hole, or tank as it might readily be made by improvement, would, perhaps, in great part supply the main drainage-way so much required in this town, and the system of smaller saucer-drains being connected with it, the surface drainage, for removal of excessive rainfall from the centre and east side of the town, might be fairly perfected. But before this important improvement can be undertaken with hopes of permanent success, the Saugor Talao must be more perfectly drained to the Sirsa Nuddee, and waterway provided from the tank to the talao. Herein, I think, lies all of hopeful practical action for the removal of the cause of fever disease now so prevalent. The work is perfectly feasible, money is forthcoming, and the necessary energy, judging by the remarks and behaviour of Meer Intizam Allee and Tehseeldar Moonshee Bujjun Lall, both members of the Municipal committee, who accompanied me at my inspection, will not be found wanting, I think, whenever it can be properly directed.

KOSEE.

Inhabitants, 12,410.

252. Kosee is a town of considerable importance, to which a Municipal government has been recently granted, but no returns concerning it have yet reached my office.

The income of the Municipal authorities is expected to average Rs. 10,000 per annum, a very fair percentage of which must, I should think, be in course of expenditure in the town, for its improvement. But judged by the number of Municipal officers employed, a rather large percentage must be expended for collection and establishment.

253. The highway from Muttra to Delhie skirts Kosee on the north side and divides it from Buldeogunj, separately named, but to all intents and purposes a part of Kosee.

Seen from the Delhie road, however, very little of Kosee proper appears, there is little, if any, bazaar on this road which is remarkably quiet; and although the town is quite close, there are only two entrances to it from the road, both narrow, and giving rise from their appearance to little expectation of the busy town beyond.

Described from east to west, Kosee consists first of the tehseelee, a well built and carefully kept place outside the town, its large enclosure planted with trees. From the Tehseelee a rising roadway leads direct to the serai. Formerly Kosee was one of the halting places between Agra and Delhie, and this serai, built in the time of Akbar, was once, no doubt, carefully kept for the accommodation of travellers. Its walls, gateway and travellers' rooms are very durably built, and, if but occasionally repaired, seem fit to last for ages. But now the enclosure has been built over so perfectly that inside the serai is as much part of the town as the surrounding quarters. Poor houses crowd the remarkably pleasing serai mosque. The Police office has been settled in one corner,—its Lock-up is one of the serai rooms, altered.

The School in the same way takes up another corner; no sign remains of the trees which once probably adorned the place, and the south side only of the serai is set apart for travellers; a kunkur-made roadway lined by shops runs through the centre of the serai. Passing westward from the serai is the main bazaar street called Lohee Mundee, a busy, well made street, which has been recently widened and straightened, to its great improvement.

Well built brickwork shops line it on both sides, but it is not of any great length. From its extremity, passing southward and eastward, is a narrow roadway leading to the grain market, or Ghullah Mundee, a wide market place, its roadway made with kunkur; and passing northward and eastward another roadway, also kunkur-made, called Bazaar Buzaz. But the roadway between the Ghullah Mundee and Bazaar Buzaz, though short, is narrow, and might be widened with great advantage.

The Ghullah Mundee is the most important place in the town, much business was seen to be conducted there, and the shopkeepers' and merchants' houses on each side are well built, double-storied, and of good appearance.

The roadway of the Mundee is wide, well made and drained, but its perfect purpose is much hindered by reason of three shops which stand in the midst of the Mundee, and by a few houses at the east end of the Mundee which stay the passage of the road there, so that the exit from the Mundee eastward is narrow and tortuous. Perhaps no better improvement for this town could be devised than its opening up southward and eastward by a continuation of the wide Mundee roadway to the outskirts in that direction.

The Bazaar Buzaz is a kunkur-made roadway of moderate width which runs northwards and eastwards to end in the Delhie road. It has been recently straightened by the removal of obstructing buildings, and although the shops which line it in places are not of so much importance as those of the Mundee, yet it serves very well to open up the part of the town through which it passes, and to give passage for carts from the Mundee

to the high road outside the town. In a direct line westward from Lohee Bazaar street, the public thoroughfare is continued through the centre of the town by a narrow, rather tortuous roadway, leading to a small open place called the Neemuk Mundee, but which appeared to be the cotton market, for much cotton is collected in this town for export, and, as it seemed, mostly in the Neemuk Mundee.

The Neemuk Mundee very much needs improvement, especially as regards the levelling and drainage of its surface. From the Neemuk Mundee a short, narrow kunkur-made roadway communicates with the Delhie road, at or about the western extremity of the town, but the culvert at the junction of the two roads is altogether too narrow to carry a road of a width sufficient for the safe passage of heavily laden carts, which seemed much required.

Everywhere away from the important roadways I have described, the public thoroughfares of the town are the usual narrow tortuous lanes of broken surface. There are many brick-built houses amongst the more numerous mud-built structures, and the town, as a whole, presents an appearance of comparative prosperity. A considerable export trade in cotton and wheat is established here, and Kosee is celebrated as a market for bullocks in all the surrounding districts.

The drainage of the town site, which is ten miles distant from any river, has been improved in days gone by, by the construction of two large tanks, one the Goomtee Talao to the south outskirt, the other the Hurmut Oollah Talao to the west outskirt. The Goomtee Talao is a vast excavation of irregular outline, long, but of varying width, and everywhere remarkably deep; at places on its banks are masonry bathing-places with steps leading down to the water. I think the digging of the Goomtee Talao must date from ancient times. It holds water very well, but I should scarcely suppose it ever fills to the brim. The improvement of the drainage channels which lead to this talao, and the perfect drainage of all the town roadways into them, is the change most urgently required in Kosee.

The Hurmut Oollah tank was made in Akbar's time, when the serai was built. It is a very large tank with stone masonry sides, now broken; the bottom also is defective, and now this tank will not hold water for any long time, but it serves very well to prevent any undue flooding of the town at the west end.

254. Buldeogunj, on the north side of the Delhie road, consists of a rather large collection of houses forming quite a small town. Its principal roadway, which opens off the Delhie road, is wide and lined by well built houses; preparations for the making of this road with kunkur were seen to have commenced. But Buldeogunj is principally noticeable as containing the bullock market place, a well ordered enclosure of large size, surrounded by huts kept by bhutearas for the accommodation of the beoparies who bring bullocks for sale or come to buy bullocks every Tuesday.

255. The enclosure has been recently laid out in lines of standing places for bullocks, faced by feeding troughs; a wide roadway passes down the centre. Trees shade the surface pretty generally, and where shade is absent young trees have been planted; a large well was being made in the market place at the time I inspected it. Its condition was everyway commendable, and its aspect of cleanliness, comfort and purpose-fitness was seen to be due in great measure to the results of recent improvement; one good work of the many the newly created Municipal authority has originated. Seeing how considerable and excellent a change has been wrought in the bullock market, I regretted to hear that, whereas the zemindar receives two annas, and the chowdhree of the beoparees two annas, for every bullock sold there, the Municipal revenue does not benefit at all directly by the existence of this important market.

256. The conservancy of the town, as a whole, was noticed to be carefully performed, and I could nowhere observe any place neglected in respect to this, either in the town or its outskirts.

Further to ensure a continuance of this claenliess of the outskirts without unduly inconveniencing any poor person, the Municipal authorities are constructing four well situated public latrine enclosures. It would be a wise plan, I think, to increase the size of these enclosures and plant them with the smaller kind of surput grass in clumps.

257. A new Dispensary has just been completed here. It is well situated outside the town to the east.

258. At Kosee, butchers are not allowed to slaughter animals in the town; the slaughter place was seen to be situated in the outskirts of Buldeogunj. It, and the butchers' quarter generally requires improvement.

259. There are a few small water-holes in some places in the outskirts of the town, which much require improvement. The principal wells from which the people take their drinking water are situated near to these holes, and, especially, there are two or three much frequented wells in the neighbourhood of the Saugor Talao. The improvement of these wells and their surrounding sites, might, with much advantage, be taken in hand by the Municipal authorities as a work of great public utility.

(*Mahabun.*)

260. I inspected Mahabun on the 13th February, and on the same day I inspected Buldeo Mundil and Gokul.

261. In writing this Report I have endeavoured to confine my remarks strictly to notices of the towns of more than 5,000 inhabitants in the several districts visited, but I need scarcely say that, in the course of my journey, I saw many towns of less importance which I did not pass by without inspection. Now, although Buldeo Mundil and Gokul do not appear as towns of 5,000 inhabitants in the Census Report, I found them to be places of so much importance that I cannot think myself justified in leaving them unnoticed, and especially as concerns Gokul, because it certainly is a town of far greater importance than Mahabun itself. I have therefore, to the Report of Mahabun, added a notice of Buldeo Mundil and Gokul.

262. The three towns stand on or near to one road, the newly kunkur-made road from Muttra to Juleysur,—Gokul on the Jumna's bank, Mahabun two miles inland, Buldeo Mundil five miles further in the same line eastward; and the sites of these towns and their immediately surrounding country is greatly esteemed by the Hindoos as a holy land, and visited by a never ending stream of devout people.

MAHABUN.

Population, 6,933
Chowkeedaree, Rs. 1,248 per mensem.
No public sweepers employed.

263. Mahabun is a town of mostly mud-built houses which stand on land fairly raised, on the brink of the Jumna khadir land there, which is lower than the site of the town. This ensures to the town a good natural drainage, to improve which, however, nothing appears to have been done; the water finding its way out of the town as best it may.

The kunkur-made road to Juleysur has been carried outside, yet partly through the town on the north side; excepting it, there is no made roadway in the town which presents, as a whole the aspect of a quiet place, inhabited mostly by poor people or by agriculturalists. Its bazaar roadway is unmade, saucer-shaped from side to side; a much used but rather small well there was seen to be without raised border, the drainage tank to it broken, yet filled as much as could be with filthy mud and water. Ruined houses on the bazaar road were seen to be in use as receptacles for sweepings and refuse generally.

An old Mahratta fort, or rather now what remains of it, stands on the highest site in the town and overlooks the Jumna khadir land to the south: once extensive, comparatively little remains in anything like good repair, excepting, perhaps, the fine stone wall which faces and supports the steepened bank on the Jumna side. One corner of the fort has been converted into a Tehseelee, seen to be little cared for, the surface of its courtyard undrained; the School-house there, poorly built, ill kept, around it rubbish and broken bricks in heaps.

The Thannah, opposite the Tehseelee gate, was seen to have a well kept enclosure. The Lock-up, two cells, one 9 feet by 6, the other 9 feet by 11, sparingly ventilated above.

On the east side of the town is a small ravine which runs down to the Jumna land. Beyond the ravine is Bustee Kot Mundee, the Mahómedan quarter, a well raised place formerly included in the fort property, and containing many brick-built houses.

The butchers' slaughter-yard here was seen to be surrounded by houses, and was unpleasant to approach; many Koormees also live on the east side of the town, where they dig holes, make and burn tiles and vessels, quite near to the houses of the town.

264. Everywhere, North, East or West, the same broken state of roadway or of the site generally appeared, the result of neglected drainage everywhere in the town; the most ordinary matters of conservancy seemed to be neglected, the result was an impure atmosphere in many places. In the outskirts of the town, and especially on the north side, the surface of the ground in several places was seen to be polluted in a persistent and shameless manner, so that the atmosphere around the town was no way purer than that within, and from this cause the evening and night of my encampment near to, but well outside the town, were passed as a wretched time. I think the inhabitants of Mahabun are not likely or, indeed, able to improve the town to any considerable extent for themselves, but if they can in any way be helped to do it, and a law of cleanliness and more decent habit taught there, a work of undoubted and much required benevolence will have been accomplished.

265. The centre of attraction to worshippers at Mahabun is the old Muttra Nath Temple, with its two black stone images, evidently a temple of considerable antiquity, but not otherwise worthy of notice.

Buldeo Kusbah,
(*or Buldeo Mundil.*)

266. Buldeo Kusbah is a town of small size which clusters round, but mostly on the north side of, the famous Kheer Koond tank and Buldeo's Temple, at which it is computed that some 100,000 people come to bathe and worship throughout the year, and in the month of December a separate collection, or fair, of about 70,000 people occurs here.

267. The Kheer Koond tank is about 80 yards square, deep, with some 12 feet of clearish water covered with a green scum, its sides of brickwork steps, of which there are many, reach down to and beneath the water. Its probable age as a holy tank in some form or other, may be guessed from the fact that it is generally believed Krishn Jee once filled it with milk, afterwards changed to water.

Many Pundons, some very rich men, live at Buldeo Kusbah, the tank is their property. The steps of the tank are very much broken. Its low enclosure wall is ruinous, and altogether the tank, as a whole, is rather miserable looking; drainage from the town which crowds it, specially to the north side, in times of rain finds its way into it. Its water is subject to impurity from many causes. Every Hindoo visitor washes in it, and invariably ends the ceremony of washing by the "Chunda Mirt" or sipping from the hand. This duty of bathing, for such as I saw engaged in its performance, seemed to be a trying time for solitary bathers, from the scandalous and really violent behaviour of shrieking beggar Brahmins who crowded about and snatched alms from the unfortunate at the water's edge, as vultures snatch meat.

268. Buldeo's Temple, on the east side of the tank, is a square masonry structure of no great size, in great part built of stone, surrounded by a deep stone-laid verandah, and standing on one side of a stone-paved courtyard. Around the courtyard are Dhurrumsalahs, or lodging places for visitors and others. Neem trees shade the courtyard. The temple belongs to Brahmins, some very rich men, and the Pundons who own the tank, and the Brahmins who own the temple, are at enmity, to the probable inconvenience or annoyance of visitors and pilgrims.

Many people,—come to worship Buldeo and Motee his wife, idols of black stone swathed in yellow garments and hung with jewels,—were present in the courtyard and temple, where a considerable confusion reigned, heightened by the din of tom-toms, great and small, to the music of which people were singing the praises of Buldeo.

269. The town of Buldeo is made up in good part of Dhurrumsalahs, mud-built resting places for pilgrims. But there are many brick-built places of residence, and especially in the bazaar which is situated on the north side of the temple, and close to it, and was seen to be rather crowded with people. The shops, especially those for the sale of sweetmeats, are large, and the keepers seemed to be contented with the business flowing to them.

270. The bazaar roadway is uneven, broken into holes in places. There is no made roadway in the town, and the repair of the unmade roads, without exception, seemed to be entirely neglected, so that the public thoroughfare everywhere was seen to be in a sadly neglected state.

The matter of conservancy, too, appeared to be nothing thought of; heaps of refuse, the collection of many days, were seen in several places amongst the houses; indeed I think every place not otherwise required was so distinguished, more or less. And the result was an unpleasantness and impurity of the air of the town generally, to which force was lent by decaying urine, for the men of the place seemed to hold all the uncovered town site as a convenient urinal. I need scarcely say that the town site is undrained throughout.

On the southern outskirt of the town there is a plain of some extent on which the fair of December is held. It appeared to be suitable for the purpose.

Buldeo Kusbah is not a town of much importance, though I should not be surprised if a correct enumeration of the people living there should show them to be 5,000 in number, but thought of in connection with the people who visit it, and the rich men who profit by its existence, it becomes a place of great importance, and its improvement merits an earnest attention. I should mention that the Lock-up at the Police office there is a close cell of the worst description.

Gokul.

271. How Gokul came to escape admission to the list of towns of 5,000 inhabitants, I cannot understand. At the time of my inspection I thought it might be due to the same spirit of opposition, if not hostility, as prevented my seeing one of the 100 temples which crowd the town; for the owners, evidently rich men and powerful, although appealed to on grounds of common hospitality and politeness, would not permit me to set foot within the enclosure of any temple, or indeed, go anywhere out of the more public thoroughfares. The tehseeldar of the pergunnah, who accompanied me to Gokul, fairly warned me of this custom of exclusiveness prevalent amongst the Gokul people, but having previously visited so many towns, and invariably found the people, when politely accosted, rather proud than otherwise to show me all of interest their town possessed, I treated the warning lightly. But the result undeceived me, as I have stated.

However, my inspection was sufficiently prolonged and minute to permit me to report as follows.

272. Gokul, as a whole, is a remarkably picturesque town, as seen from a distance. It stands, a mass of fine masonry buildings well raised up, on high land on the bank of the Jumna, the smooth white walls of the plastered houses and temples set off by many green trees which mix amongst the houses. As I have mentioned before, it contains about 100 temples, of sorts, of which 22 are large. Well built masonry houses in good repair divide the temples, so that the general aspect within is that of a durably built, large important town. Of more importance, I think, altogether and containing more evidence of accumulated wealth than very many of the towns previously mentioned in this Report, it is entirely a town of Hindoos, for Mahomedans either can not, or do not desire to live in it. That it contains a population of more than 5,000 persons will be sufficiently apparent when I say that it is believed to contain more than 5,000 bullocks and cows, the property of the residents who keep these animals in small rooms or courts in all parts of the town.

The town is entered by three gates connected by the principal roadways of the town, which is not of great extent, but remarkably crowded. The bazaar was seen to be a busy place of many shops, but its narrow roadway, crowded with people, was seen to be broken into holes. The roadways of the town everywhere partake of this nature, some are so narrow it seemed hard to believe they could be public thoroughfares, all are unmade, full of holes. Drainage is nowhere cared for, and with the Jumna near, an admirable natural slope to help, this important matter seems never to have been thought of.

On the north side, but in the town, there is a nullah which runs down to the Jumna, for the river runs close under the town, and at the river's edge are five large bathing ghâts, three of which, however, are old and broken, the two remaining are perfect and much used.

Just outside the north gate is an unusually handsome stone-built tank in perfect repair, surrounded by steps and furnished with many stone platforms running out into the water for the convenience of bathers.

273. The Tehseeldar's opinion concerning this town was that it contained many thieves and vagabonds, and was altogether filthy (Niahut ghaliz).

As regards its conservancy, I can say I have never seen anything to approach the condition of neglect present at Gokul. Wherever drains existed they were seen to be full to overflowing with impurities of a character the most abominable; wherever cattle were lodged, a filthiness past anything I can describe was apparent.

Filth lay in most convenient places and corners, and the nullah mentioned above, which is the natural waterway of that side of the town, was seen to have its bed broken into holes, every hole filled to overflowing with semi-solid impurities, in great part simply fœcal matter, which had flowed out from houses to find a resting place there, certainly I have never in any town seen anything so essentially abominable as this nullah.

274. From a distance Gokul presents an appearance not far from charming, inside it is far otherwise, and the cause of this, is I think, apparent enough. The site of the town is holy ground in the estimation of Hindoos, and has been built over as closely as men can well crowd houses together. The small sum of Rs. 100 a month is collected as a house-tax, and distributed to watchmen. No Municipal authority or government appears to be exercised, and the people, with reference to matters which affect the public health, are not in any way guided or controlled.

275. I think Gokul is a town which very much requires a Municipal government. Its people are rich enough to supply the necessary funds, the necessity of improvement is urgent and cannot be denied by any person not misled by selfish interest. And this

improvement is demanded, not more in the interests of the poorer inhabitants than for the sake of the numerous pilgrims who visit the place, and who, but for the comparative purity of the drinking water, due entirely to the nearness of the Jumna stream, could scarcely hope to escape ill effects from a temporary residence there.

CHATAH.

Inhabitants, 6,060.

Chowkeedaree about Rs. 1,560 per mensem.

No public sweepers employed.

276. I inspected Chatah on the 20th February. It is a town of some 1,450 houses of which 200 are brick-built, the remainder mud-built.

277. Chatah is a town principally of Jâts and Jadons, and is essentially a country town of little importance.

There are two Mohullahs inhabited by Chumars only, and this part of the town is remarkable for the narrowness of its ways, the houses being crowded together to a quite unusual extent, even for an Indian town, indeed this state of overcrowding characterizes the town as a whole.

Ruined houses and houses in bad repair are common, trees seem to flourish with difficulty here, no road or way seems to be ever repaired, and the general aspect of the place is depressing.

278. The site of the town, well raised, is nowhere drained except by its general slope. Many cattle, it was said 2,000 bullocks, are driven into the town at night to rest, and their going out in the morning time makes walking in the town then a rather hazardous business, and, as a matter of course also in connection with this custom, manure heaps exist in many places amongst the houses, and especially on the north side of the town, in neglected undrained waste places there. On the north side, too, there is a large water-hole.

The south outskirt of the town is also a more than usually unpleasant place, being the sweepers' quarters, where many pigs are kept. The Customs' hedge hems the town on this side, cutting off free communication with the Delhi road and country generally, except by two widely divided openings.

279. The one redeeming feature of Chatah is its serai, one of the finest I should suppose in the country. It was built in Akbar's time, stands on the highest site of the town, and consists of a very large enclosure, entered by two handsome, high-raised, stone-built gateways, and surrounded by stone-built rooms for travellers. The whole is built of stone and lime of a goodness and thickness fitting it to stand for ages with proper repair.

But, and I suppose unavoidably with the change of times, the necessary repairs have been sparingly given, and some parts remain broken, yet, in reality it stands now essentially but little changed from the shape it took so many years ago. But its wide courtyard has been much changed, huts and houses have been built over it, forming a bazaar in places, and its surface is broken and generally irregular. The tehseelee, a well kept place, has been built at one side. Two of the travellers' rooms in one corner have been converted into a school-house, communicating with the outside by a small doorway made through the stone wall, and furnished with a small courtyard enclosed from the general space within. This school place was seen to be unswept and generally neglected.

280. Entered from the main gate of the serai, the bazaar, of no great length, passes right and left. Its roadway is remarkably narrow, unmade, depressed; the shops brick-

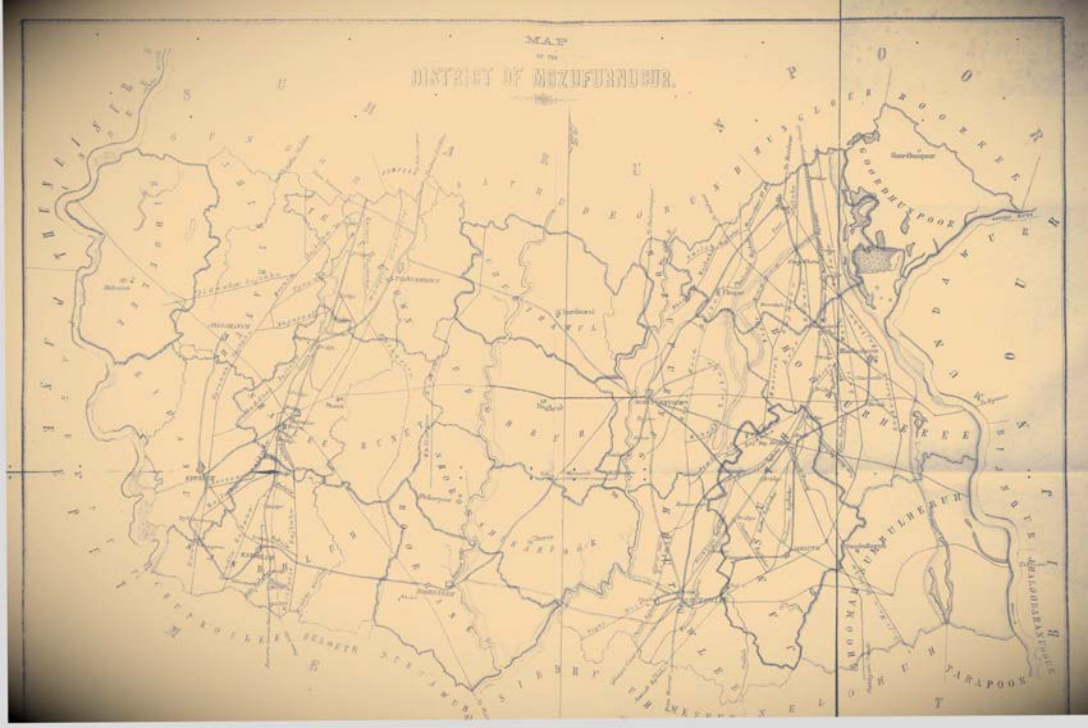
built are shaded by thatched roofs, which throw rain-water into the roadway, and in times of rain the latter must be a very defective public thoroughfare.

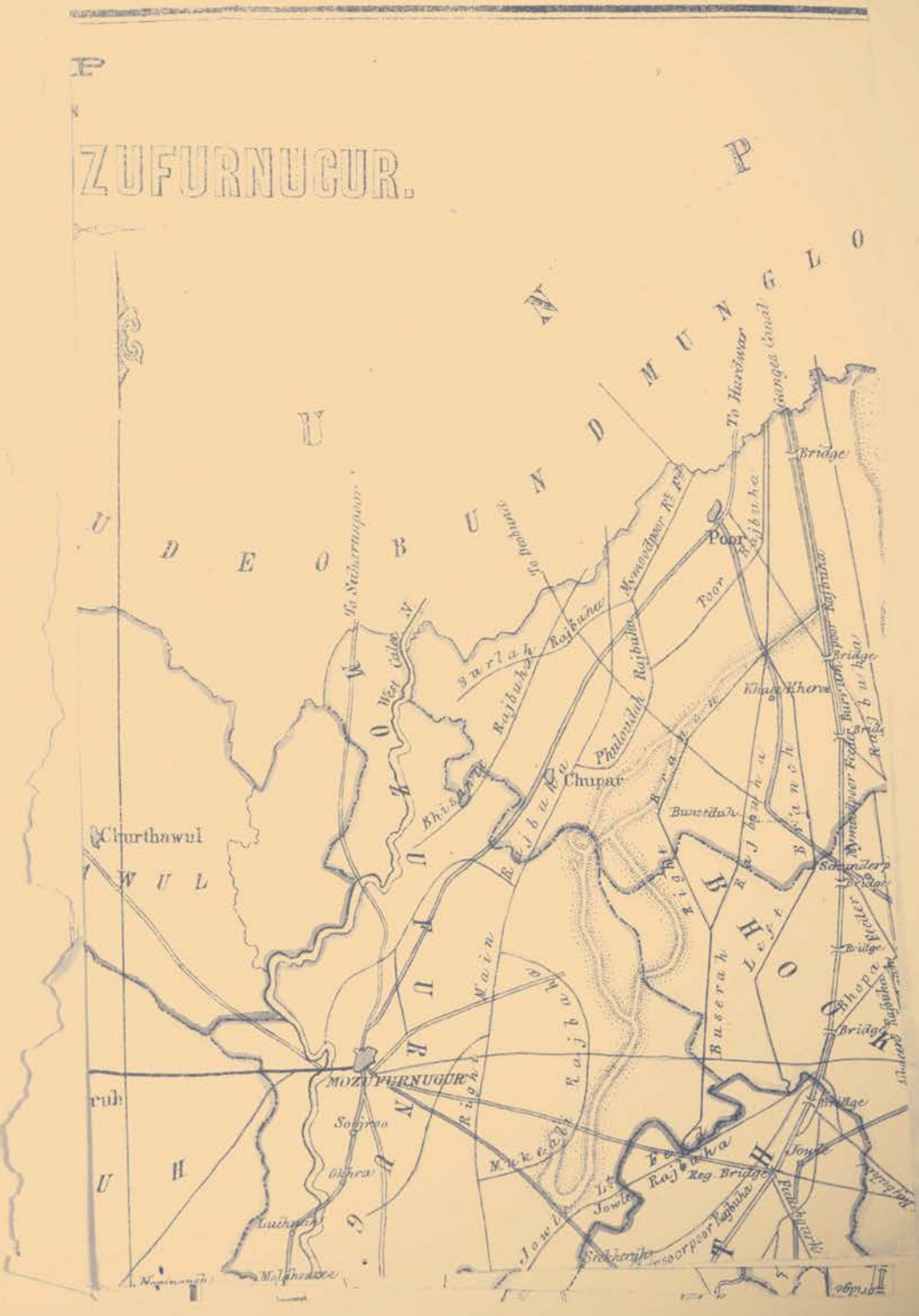
The butchers' slaughter-place was seen to be situated amongst the houses of the town, and, with its immediate neighbourhood, is a neglected part.

On the east outskirt of the town is a large misshapen water-hole, between which and the town are several gôts, or small enclosed places, in which manure, cow-dung fuel, and fuel of cotton-sticks and other necessities of an agricultural population are stored, and I think there can be no doubt the majority of the inhabitants are agriculturists who pass their days in the fields and care little about the state of the town they inhabit at night.

281. The greatest want of this town, in a sanitary point of view, is its opening out by means of one or two good roadways; with the completion of these would follow, of necessity, the drainage of the site towards the east and north water-holes, at least in part. An improved conservancy also is much called for as regards the removal of refuse, for nowhere in the town were impurities seen, or nuisance, to provide against which latrines are required in large towns. The custom established is for the people to retire to some distance from the town precincts.

282. As regards water supply, the town is well furnished by means of some fifteen large wells. But the water mostly used for drinking is taken from four of these situated in the lower ground,—two in the north, one in the west, and one in the east outskirts of the town; and attention might with advantage be given to the better drainage of the surface about these much frequented wells.


MAP
of the
DISTRICT OF MUZUFURNUGUR.


ZUFURNUGUR.
MOZUFURNUGUR
Chupar
Poor
Churthawul
Bridge
Reg. Bridge
Jowle
Buserah
Left Branch
Right Main Rajbuha
Mukeali Rajbuha
Burlah Rajbuha
Phuloudah Rajbuha
Mymoodpoor Rajbuha
Bhisanta Rajbuha
Bhopa Feeder
Sooroo
Okhra
Seekherah
Moldharee
To Hardwar
Ganges Canal
To Deobund
To Saharunpoor
West Calee N.
Bunseduh
Khaee Kheree
Sorunderp
Jowle
Feed
Rajbuha
Fudahgurh
Moorpoor Rajbuha
Burrah Poor Rajbuha
Poor Rajbuha
Bridge

PART III.

Concerning Fever and its causes in the Moozuffernuggur, Saharunpore and Meerut Districts.

283. Immediately after the completion of my inspections of the towns mentioned in this report, I received instructions to proceed to the District of Moozuffernuggur, and to enquire into the causes of fever disease there.

284. From the reports of District Officers and from the statements of mortality it appeared that deaths from fever in this district continued to be very numerous, if anything perhaps more numerous than in previous years when its prevalence necessitated the appointment of an officer specially charged to investigate its causes and propose a remedy.

285. The thoroughness of the work performed by that officer, and the goodness of the report which resulted, have been justly acknowledged by Government, and I may add here that during the time my mind was directed to this subject, Doctor Cutcliffe's report served me as a faithful guide and very trustworthy companion, and I desire to witness to the ability displayed in its preparation and the soundness of the conclusions arrived at in it.

286. The prevalence of fever in the districts of Moozuffernuggur, Saharunpore and Meerut may best be judged by a statement of the deaths reported to have happened there from this cause during the past four years, not correctly judged, because the returns are incorrect, but better so than by any other statement I can make, and the following is the statement:—

District.	Population.	Deaths from fever in				Total.
		1866.	1867.	1868.	1869.	
Moozuffernuggur, ...	6,82,189	4,376	5,104	4,131	10,541	24,152
Saharunpore, ...	8,66,483	5,098	5,853	7,210	11,189	29,350
Meerut, ...	11,99,593	6,926	10,287	8,425	9,626	35,264
Total, ...	27,48,265	16,400	21,244	19,766	31,356	88,766

From this statement it would appear that the increase of deaths from this cause has been persistent and may be considered progressive, and I think it may be accepted as true that, deaths from fever in these districts showing such a determined tendency to increase as years of differing climate succeed each other, some special cause must be at work to produce so unusual a result.

287. I have said that the returns quoted are incorrect, I should be more explicit, and state that I believe, from what I saw at the burning and burial places of towns and villages in these districts, I very much fear that the returns err in considerably understating the true mortality. But the figures of the returns are of themselves sufficient to show that the inhabitants are suffering under serious and pretty general affliction, for the deaths recorded are deaths from ague, and it may be safely stated that, for one person who has died of the disease, quite one hundred have suffered from it short of death. Indeed, in some centres of population, all the people are suffering in a greater or less degree, and in the months terminating the rainy season I think it would not be a difficult matter to find, by actual inspection, places where ague has prostrated the entire population, so that the common and absolutely necessary business of life is carried on there with difficulty.

288. Inspections in the Moozuffernuggur District and some towns in Saharunpore occupied me from the 4th of March to the 7th of April, when I arrived at Hurdwar

to be present at the annual fair there. Having at command but a month of weather suitable for this business of inspection, I thought it best to confine my attention to places where deaths from fever are most common, and the following is a record of the places inspected:—

1. Moozuffernuggur.
2. Chupar.
3. Burhul.
4. Phuloudah.
5. Poor.
6. Busedah.
7. Khace Kheree.
8. Secunderpore, Ruhutpore, and Gudwara.
9. Bookeheree.
10. Chuchrowlee.
11. Morna.
12. Jowlee.
13. Jansuth.
14. Sumbhulherah.
15. Untwara.
16. Pulree.
17. Khutoulee.
18. Phoulut.
19. Munsoorpoor.
20. Seekherah.
21. Soojroo.
22. Ohlna.
23. Luchera.
24. Molaheree.
25. Nirmanah.
26. Kakra.
27. Boorhanch.
28. Kandlah.
29. Islampore.
30. Gungeroo.
31. Teeturwarah.
32. Kyranah.
33. Shamlee.
34. Kheree Kurmon.
35. Bhinswal.
36. Salawur.
37. Thanah Bhawun
38. Nannouta.
39. Rampore.
40. Saharunpore.
41. Deobund.
42. Munglour.
43. Roorkee.

289. By reference to the accompanying map, the situation of the places inspected in Moozuffernuggur,—the district especially selected for the purpose in hand—and at the same time the extraordinary number of the irrigation channels in existence in this district, and their relation to most of the places noted for fever, may be seen.

With reference to those channels it should be understood that the land represented as existing between any two of the blue lines belonging to each canal, is, as a rule, in great part irrigated from that canal by means of lesser channels not shown in the map, and that these channels, great and small, have their beds raised above the surface of the land they traverse, so that to irrigate the intermediate fields it is only necessary to provide an opening in the channel's side.

The facility thus afforded for the ready distribution of water over the surface, with the least amount of labour, permits, I think, an excessive use of the water, so that much more than is absolutely necessary for the growth of the crops concerned is poured over a large extent of country. And further, the cultivators of the land in question, anxious only after their own interests, have introduced the custom of cultivating "Moongee," and other valuable kinds of rice, on land where, previous to the introduction of irrigation by canals, only Bajra and Jowar could be grown.

The quantity of the land thus converted to a new purpose is very considerable, and seeing that "Moongee" is a rice of such a nature that it cannot be successfully grown except in land kept moistened from the sowing to the seeding time, it follows that much watering is necessary for its welfare whenever a break occurs in the rains of an ordinary season, or pretty continuously in seasons of little rain.

290. The general excess of irrigation, and its extraordinary excess in the new rice lands, has resulted in raising the spring level, and, continuing for a series of years, has gradually converted the formerly dry land between the Ganges and Jumna, at places of wide extent, into a moist Terai land, and now the trees grow there with the large trunks and wide-spread foliage of a damp forest country; the water in the old wells is from 30 to 40 feet in depth; the water-holes which used to be dry for many months in the year now always contain water; low land which used sometimes to be swampy has now much extended in area, its swampy nature become more permanent; crops of a marvellous height and thickness cover the land.

291. In former days, if the testimony of respectable residents is to be believed, the Moozuffernuggur and Saharunpore Districts were accounted so healthy, their air and water found to be so good, that influential people from Dolhi and Agra used to come to them for change after sickness; now they are so notorious, as places where fever prevails, that no one would think of going there for that purpose. To change the character of a climate to such an extent as that, a great change in the relation of things must have occurred, and I think the introduction of irrigation as practised there is the change which has brought about the result now complained of.

292. And especially I think the changed character of the water which finds its way into the wells of these irrigated districts has much to say to this new prevalence of fever disease. Formerly the wells were replenished by the rain-water which fell in the district and afterwards reached the well after a probably slow process of filtration, for the surface of the water in the wells then averaged 40 feet from the surface of the ground. Now the wells are replenished by water collected from the snows or from the sides of the many wooded hills of the Himalayahs, which reaches the wells after very little filtration, for the water now stands in the wells at an average of from 10 to 15 feet from the surface. Formerly, on the testimony of many old inhabitants, the water of the wells was sweet as any in the world, and clear as crystal. Now it is, wherever irrigation has extended, of unpleasant taste and dull colour.

293. The towns and villages of the irrigated country, too, are ill adapted to the present circumstances of the land. Built, and their sites selected at the times when the inhabitants had to depend only on water from the heavens, in many instances they are not now sufficiently raised above the broad expanse of vegetation which surrounds them, their roadways are depressed, and many water-holes exist in their neighbourhood, formerly useful as stores for water, soon used up; now permanent, the home of weeds and water-fowl.

294. I will not lengthen this report by describing the form of fever from which the people suffer, which has been faithfully described by Doctor Cutcliffe. I call it ague, as a term comprehensible by all, and the causes of which are pretty widely known by reason of the well authenticated history of the sufferings of the inhabitants of the fen-country in England in times past. Wherever there is excessive moisture and excessive decay of vegetable matters ague is likely to occur. When these two causes did not exist in these districts there is good reason to believe that ague was little known, now that they exist, of the excess of moisture I need say no more, to the excess of vegetable matter the great crops witness, ague is very prevalent.

295. The undoubted proof of the prevalence of ague is the existence amongst the people concerned of many unfortunate persons who have an enlarged spleen. These are cases in which the disease is approaching a fatal termination; if men, they are miserable, impotent persons who, in the majority of instances, have suffered repeated attacks of the disease and are not likely to live very long; their number existing at any one time is therefore limited, but wherever many persons can be found in a given population with enlarged spleen, it may be believed that ague troubles the people generally.

This proof is not wanting amongst the people of these districts, as will appear in the following statements which have been condensed to the utmost possible extent compatible with a clear rendering of the facts as noticed at inspection.

296. *Moozuffernuggur.*—A large, rather important town, inspected on the 4th, and again on the 16th of March, surrounded by irrigated land on the north-east and south, and by the moist Khadir land of the Kala Nuddee to the west. Surface of water in wells in the town raised many feet above the old level. People suffer very much from ague. Undrained water-holes in different places, but especially to north-west of town; excessive vegetation on all sides. Civil Station near to town, on east side, was healthy until gardens and fields in it began to be cultivated by means of canal water. Then the European officials began to suffer from ague, and have since suffered pretty generally. During the present year canal irrigation, within a radius of a mile from the centre of the Civil Station, has been discontinued, and fever has been much less prevalent in the station and town.

297. *Chupar.*—A large village of 2,300 inhabitants, mostly Thuggas. One hundred and four persons died of fever last year; principal well 45 feet deep, contains 30 feet in depth of water, said to have contained about 12 feet in depth before canal irrigation was introduced. No cases of enlarged spleen could be found; many children; some families of seven, six and four children. Permanent water-holes to west of village, much mud.

298. *Burhul.*—A large village of 2,000 inhabitants, inspected on 6th March. About 100 died of fever in the months of January and February; a very filthy place: large permanent water-holes on west, north and south sides, irrigated fields all round village, carrying high close crops, especially of wheat; a damp place, generally swarming with gnats and flies; an old well contained 24 feet in depth of water, water 20 feet from the surface; several cases of enlarged spleen seen, one of a boy, very large; 24 new graves in Mussulman burial place; 60 quite fresh cremation heaps in Hindoo burning place; 36 new graves in the Chumar burial place. The natural drainage-way is to the west, towards the Kala Nuddee, but a rajbuha intervenes, and the excess of rainfall collects about Burhul or finds its way slowly south towards Chupar. The trees in the groves about this village stand close together with a thick foliage and are unpleasant from a smell as of rank jungle. This is the account in the finest season of the year. In the rains Burhul must of necessity be a very feverish place, indeed the principal inhabitants said every person there suffered from fever as the rain dried up. Testing this statement I found of the 10 people of the village sonar's household all had had fever two months ago and one had died. In a Mussulman's family of six, two died last December. The people have a careworn, discontented look.

299. *Phuloudah.*—A village of 300 houses, site low, water-holes to south-east and west, all refuse thrown out on the roadways and there left, nowhere drained, fever very prevalent after the rains; 125 persons said to have died last year; counted 60 new cremation heaps on burning ground, all must have been made since the rains, some people are buried after partial burning and leave no heap behind, and children are buried and not burnt. Several cases of spleen seen, one of a young man with very large spleen.

300. *Poor.*—Inspected on 6th March. A town of 2,500 inhabitants and some brick-built houses; contains a great well and mosque of the Emperor's time and is peopled mostly by Sheikhs; rather raised site, altogether undrained, water and mud in streets, extensive permanent water-holes to east and west sides. The old Badshahee well contained 36 feet in depth of water which stood at 20 feet from the surface. Before canal irrigation was introduced the well contained 12 feet of water which stood at 44 feet from the surface. Fever is very prevalent, 400 people are said to have died of it and dysentery last year, 87 people died in the months of January and February 1870. Two persons with greatly enlarged spleens examined, many so afflicted here.

301. *Busedah.*—Inspected on 7th March. 3,939 inhabitants, a great busy Hindoo and Jât village of mud houses and broken undrained roadways, site rather raised, a bad smelling place with much filth of pigs about, swarming with gnats and flies, extensive water-holes to west and east, another smaller to south. Water in the old wells 36 feet

in depth. Fever prevalent; since September last to date of inspection 120 persons have died of it. One young man and two fine boys seen to have large spleen.

302. *Khaee Kheree*—.A large village of mud houses close to a rajbuha, site fairly raised, manure heaps placed outside, with one exception—a great heap 15 yards square at one place. Water in principal well 20 feet from the surface, depth of water not measured; fever very prevalent in the autumn, 200 people died of it last year, on the testimony of the Thugga Zemindar Imrut, who complained that the putwaree never came to the village from Poor, where he lives; chowkeedar reports deaths once a week at Poor. Small-pox also was very prevalent in March 1869, all the children are said to have suffered from it and many died; as yet no vaccination has been practised there.

303. *Secunderpore, Rulutpore and Gudwara.*—Three villages close together containing a population of some 1,500 people. They are situated on land well raised above the general surface to the west, for the road rises suddenly here, the soil around them is sandy and their site seems well chosen, especially with regard to their probable freedom from causes of fever disease, but irrigation by canal-water is persistently practised everywhere in the surrounding light soil which is favourable to the production of sugar-cane. This is grown in large quantities and with such dependence on canal-water that the ground is even prepared for ploughing by being first saturated with water from the canal, as I saw in many places. Fever is prevalent, and 20 persons died of it in the three months November, December and January last.

304. *Bookeheree.*— A town of 4,649 inhabitants, with a small brick-paved bazaar and two or three brick houses, the rest of mud; four good wells, water 40 feet from the surface with a depth of 31 feet in the well. Extensive permanent water-holes exist on all sides; a very filthy town, bad smelling in many places; pigs perform the work of scavengers but increase the filth; many ruined mud houses used as receptacles for refuse, manure heaps kept outside. No especial complaint of sickness here, and no cases of enlarged spleen could be found.

305. *Chuchrowlee.*—A largish village, 557 inhabitants, inspected on 9th of March. 16 persons have died of fever here since October last. Near to it to, east, is Wuzeerabad, a village of 551 inhabitants, of whom nine have died of fever within the same period. Irrigated lands on all sides, sandy soil, many water-holes about these villages but all dry now. Large manure heaps amongst the houses, water in the wells 40 feet from the surface.

306. *Morna.*—A village of 800 inhabitants and celebrated for blanket making; wide sandy grazing ground or plain near for sheep, a much neglected filthy place, quite undrained, sandy rather raised site, village ruinous in places. Water 40 feet from surface, great dung heaps inside, great water-hole to west. Fever very prevalent here, and since October about 50 people are said to have died of it.

307. *Jowle.*—A large important village; the home of an influential Syud zemindar who has a fine house in the centre; 3,000 inhabitants, mostly Mahomedans; water 16 feet from the surface now, used to be 30 feet; everywhere filthy, manure heaps inside, a bad smelling place. Punbarah rajbuha runs past it. Between the village and rajbuha is a low place with many holes and much water; five other water-holes exist around the village. Formerly bajra was grown in the rainy season, now rice of the kind which must always be kept wet. All the inhabitants suffered from fever since last rains, about 200 are believed to have died. The resident zemindar believes the causes of the general sickness to be the filthy condition of the village, the excessive quantity of vegetable food now consumed by the people, and the changed nature of the water since the wells filled up.

308. *Jansuth.*—Inspected on 11th of March. A town of 6,000 inhabitants mostly Mahomedans, house-tax of Rs. 150 per mensem, 11 public sweepers employed; well kept; water 15 feet from surface; 30 feet deep in the wells; canal irrigation on all sides. Extensive water-hole containing much water to east outskirt, partially drained by a

recently made cutting. Near to the south-east is Mohullah Gurhee, a separate village; a bad smelling place of low site; a large filthy pool near to it has also been lately partially drained. The cutting from it and the Jansuth water-hole meet, and are continued by a cutting recently made by way of Tisung to the Nagul Nuddee near Ghalimpore. This drainage-way no doubt serves a good purpose in relieving Jansuth and its neighbourhood from the excessive collection of rain-water, but I think it is to be regretted that the earth taken from the cutting was roughly piled on each side of it instead of being utilized to raise the surface of the water-holes drained.

Fever has been prevalent at Jansuth and Gurhee for several years past, and many people have died of it, the number could not be stated. It is generally believed by the people there that fever has been less prevalent since the cuttings were made. But they complained greatly of the changed nature of the water which now fills their wells.

309. *Sumbulherah.*—Inspected on 11th of March. A large scattered village surrounding one fine brick-built house the property of a Nawab. The village stands in a sandy plain and there are low sand-hills near it, and to the north-east a brick fort with high corner towers, partly containing a village called Mahamoodpoor. Sumbulherah has manure heaps amongst the houses in corner places, and is a bad smelling neglected place generally. The land about the village is not irrigated from the canal, and of all the village land only that at some distance from the village on the north side is irrigated; a rajbuha passes pretty close to the village on the west side, but it does not affect the principal well of the place on that side, the water in which stood at 30 feet from the surface.

On the testimony of the Nawab's resident manager fever is not prevalent in this village, only six or seven people having died there, he thought, in the past year, from any cause.

310. *Untwara.*—Inspected on 12th of March. A large mud-built village containing a masonry temple. Its site is low, and it stands at the margin of what looks like a wide water-hole half a mile long, but is the broad bed of the Nagul Nuddee, a wide, ill-defined natural waterway of this part of the country.

The water in the wells at Untwara was seen to be seven feet from the surface. The village is surrounded by extensive wheat fields seen to be plentifully irrigated from the canal. Much sugar-cane is cultivated on the village lands. It appeared as a moist place with much green grass around it, gnats and flies abound, manure heaps exist amongst the houses or very near to them. Fever is very prevalent, the statement of residents was that everybody sickens with it after the rains. I could get no statement of the probable mortality of the past season, but many had died.

311. *Pulree.*—Inspected on 12th of March. A small village of 300 inhabitants; site well raised, but to south is a jheel, also the bed of the Nagul Nuddee, which had been increased in extent by the construction of a high raised rajbuha which passes the village on the east side; recently water-way has been provided for the surplus water of the jheel beneath the rajbuha, and a shallow cutting made which goes to meet the Jansuth cutting. This shallow cutting did not seem to be of much value as a drainage channel, being full of stagnant water. Fever prevails at Pulree so that all the people suffer.

312. *Khutoulee.*—A good sized town which does not appear amongst the towns of 5,000 inhabitants in the census return, but is probably worthy of a place in that list: an important town of many brickwork buildings, four Jain temples, 225 houses of Suraogees, seven houses of Bhaorees, all great traders; a town with well paved busy bazaar, and growing in importance from the gift of railway communication. I inspected it on the 13th of March. A house-tax of Rs. 150 per mensem is collected, and 13 public sweepers are employed. I found it well kept and remarkably clean, the site unusually

well drained to the water-holes in the neighbourhood, and certainly a very considerable amount of improvement has been recently effected here. Fever, however, is very prevalent here every year after the cessation of the rains, and for several months; at the time of my inspection many were sick; in one house of four persons three were ill with ague and one had enlarged spleen, another man was seen with enormous enlargement of that organ, and that condition was said to be common.

To the south and west outskirt there is an extensive jheel-like excavation containing much water. The land on all sides of the town is irrigated from the canal. The water stands in the wells now at 11 feet from the surface, before canal irrigation was introduced it used to stand at 24 feet. The people complained that the changed nature of the water in their wells was the cause of their suffering from fever.

Nearly due west of Khutoulee is the canal escape to the Kalee Nuddee, a cutting 30 yards wide and three and a half miles long. It was seen to be a swamp from end to end, and its bottom and sides covered with impenetrable jungle.

313. *Phoulut.*—Probably 1,500 inhabitants, a purely agricultural village of medium size, inhabitants mostly Mahomedans, site little raised. Land irrigated on all sides, water in principal well 20 feet from the surface, and 30 feet in depth; water used to be 40 feet from the surface; brick-work of well broken down to the water; rajbuha seen to west, water in it as high as the village site, large permanent water-holes between rajbuha and village, several smaller holes to east, a large hole to north-east, closely hemmed by manure heaps, much sugar-making going on, much decaying vegetable matter resulting. A second important well outside to east, water in it 12 feet from the surface, site much broken into holes, undrained. Drains from wells filled with mud. As a rule all the inhabitants suffer from ague every year during and after the rains. Three persons with enlarged spleen examined; that condition seemed well known and several persons who could not be found at the time were said to have it.

314. *Munsoorpoor.*—A small country town, population 2,450, surrounded by rice and sugar-cane cultivation, water-holes on all sides, site low to north-east and east, extensive water-holes there, water in principal well 18 feet from surface, 15 feet of water in the well, an undrained filthy place, especially filthy in corner places and places of ruins. Water in a smaller well 10 feet from surface. Large water-hole to west, called "jheel" by the inhabitants, much uncovered mud there. In the rains water collects on this side of the town so that the inhabitants cannot find exit there. For the past two years fever has been very prevalent here, last year about 100 people died of it; two men with enlarged spleen examined.

315. *Seekherah.*—Inspected on 16th March. A large village; site a low sand-hill, manure heaps inside, a miserable looking place never swept; extensive water-hole to east; manure heaps around the outskirts; water in wells six feet from surface. Fever prevalent after the rains.

316. *Soojroo.*—Inspected on 19th March. A large village, site rising bank of Kalee Nuddee; probably 1,800 inhabitants, mostly Mahomedans. Land on north and east sides higher than the site of the village. Wide khadir land of Nuddee to west, rajbuha near to east, water 25 feet from surface, 12 feet of water in wells. Fever very prevalent after last rains, 125 persons said to have died of it in past six months, several persons with enlarged spleen examined. Inhabitants generally sickly-looking and sad.

317. *Ohlna.*—(Wuhulna.) A fair sized village surrounding a Syud's pucka house, also near khadir land of Kalee Nuddee which is distant half a mile to the west; very filthy, site half sandy bank and half khadir land of Nuddee; water 25 feet from surface, no water-holes. Fever prevalent every year after the rains. No enlarged spleens could be found.

318. *Luchera.*—1,400 inhabitants. A village on opposite bank of the Nuddee, site high, well drained naturally to Nuddee, no canal irrigation within two koss, and that on

the other side of Nuddee. Water 45 feet from surface. Inside all undrained, water and mud lying, result of recent rain. Filthy, unswept everywhere, much broken ground to west outskirt. About 150 people have died here, during past six months, of fever and dysentery ; several enlarged spleens examined, one very large.

319. *Molaheree.*—Inspected 19th of March. A village of 1,200 inhabitants, site highish, sandy, but to north-east low. Khadir land of Kalee Nuddee to east ; water in wells 20 feet from surface. No irrigation near ; after the past rains every person here suffered from ague, and the statement of the resident zemindar was that about 200 have died in the past six months ; several persons with enlarged spleen examined.

320. *Nirmanah.*—A very small village, exceedingly filthy from manure heaps, site low, no canal irrigation, no complaints of fever.

321. *Kakra.*—Inspected on 20th of March. A large crowded Hindoo village, many Jâts, site rather raised, people happy and contented by their own showing. No canal irrigation near, water 35 feet from surface in principal well, irrigation from wells, good crops around, many bullocks, rather cleanly kept, manure heaps outside, houses much crowded, ways very narrow, swept, but all undrained. Extensive water-hole to north, another to west, others forming to south and east. Broken ground to east, filthy skinning place of dead cattle there, decaying bones, filth of pigs plentiful.

No person died of fever here last year, nor is fever prevalent in any year. No cholera since 1867, but small-pox comes every year.

322. *Boorhaneh.* Inspected on 21st March. An important rather picturesque brick-built town on right bank of Hindun. Partially fortified by outside walls of houses, entered at four places called gates; 6,000 inhabitants, well raised site amongst small ravines, low broken land around water in low land, but all drains well to Hindun. Water in wells of low land 30 feet from the surface, nearest canal irrigation 10 miles distant, but a rajbuha is being made to Jowluh, then irrigation by the canal will be about two miles distant.

323. To the north the town site is bounded by the sandy bed of the Hindun, about a mile wide. West and south it is surrounded by quite a belt of mangoe groves. East, is a wide and very extensive low khadir land apparently left by the Hindun which coming down from the north now turns due east just above the town. This wide track of land must be in great part covered with stagnant water after heavy rain.

A house-tax of Rs. 150 per mensem is collected, and seven public sweepers are employed. The town was found, as a whole, very cleanly kept. The bazaar public well is 48 feet deep with five feet in depth of water of a dull colour and rather unpleasant taste. Ague is very prevalent here, and many people with enlarged spleen were examined. There is no Dispensary, and much complaint of a want of proper medicines was made. The inhabitants, while deploring their subjection to fever disease, were not prepared to account for its prevalence.

324. *Kandlah.*—Inspected on 22nd March. 1,200 inhabitants. A large old Hindoo town, half a mile to east of Jumna canal, land between, low, with shallow water lying in places. Water in the wells there 12 feet from the surface. A house-tax of Rs. 350 per mensem is raised, 11 public sweepers employed, site of town well raised, many fine brick-work houses, spaces between them very filthy; a town in which many bullocks and cows are kept, and noticeable for heaps of broken bricks and refuse in corners, much pavement of brick in places, many ruins ; large streets fairly well kept.

To the west end is a Mahomedan quarter. To the west outskirt are extensive permanent water-holes, and this is a bad smelling, neglected part generally, but specially in the butchers' quarters where 150 sheep and goats were seen enclosed in a courtyard eight yards square, the unpleasant result being perceptible for 50 yards around, very bad

smelling slaughter-place, many skins washed in the stagnant water near it. Land irrigated from canal on all sides.

Fever prevalent after and during the rains every year, and especially so last July, cases of enlarged spleen could not be found, but were said to exist.

The manufacture of saltpetre has been introduced here during the last 10 years, its presence near the surface now believed to be due to the general raising of the spring level. No Dispensary, much general sickness. A town which much requires a more perfect Municipal government.

325. *Islampore.*—Inspected on 22nd March. A filthy village, land irrigated on all sides, a small water-course (Kolaba) on east side, degenerated to a filthy ditch, manure heaps inside and all round, some very extensive. Permanent water-holes to north-west and to east beyond and about the Kolaba.

All the people suffer from fever; several examined who had enlargement of the spleen, one a man of 36 whose spleen filled all the front of the abdomen, a second a young man of 20, about to die, his abdomen prominent, inclined to be pendulous from the same cause.

Itch also was seen to be prevalent, so that of a collection of many of the younger people every one was seen to be suffering from it, some in an aggravated form.

326. *Gungeroo* (Gungolee).—A straggling place of many brick ruins, site fairly raised, water-holes to the east, roads all water-ways and unswept. Fever said to be not very prevalent here.

327. *Teeturwarah.*—A large mud-built village much neglected, manure heaps amongst the houses and around the outskirts.

Concerning disease in this and the previously mentioned village I could learn very little, as the more intelligent inhabitants were absent. I could not find any cases of spleen, however.

328. *Kyranah.*—Inspected on the 23rd of March. A town of 17,000 inhabitants, site partly Jumna khadir land, partly the low bank where that land rises into bangur. Water 25 feet from the surface in bazaar, eight feet of water in the well. No canal irrigation in immediate neighbourhood, much irrigation from wells in khadir land by means of persian wheel; water averages 15 feet from surface there, in some places 10 feet only.

A house-tax of Rs. 420 per mensem is collected; 17 public sweepers employed.

A brick-built town of much crowded, flat-roofed houses, very narrow ways. The butchers' quarter a filthy mohullah in the town. The town filthy generally everywhere, excepting the bazaar well paved and carefully swept. The sweepers collect impurities in out of the way places amongst the houses, and do not remove the collections for many days; neighbourhood of the wells greatly neglected. Filth from drains thrown out to dry up on the roadways. A prospering town which much requires a better Municipal government. Fever not prevalent here during the past year nor usually prevalent as it is in the places surrounded by land irrigated from the canal. In 1868 fever was unusually prevalent.

329. *Shamlee.*—Inspected on the 24th of March. 9,728 inhabitants, a town of importance, brick-built with many good houses, site low throughout, rather a hollow than otherwise. Land irrigated on all sides, water in the wells in some places four feet from the surface, in some 10 feet from the surface. In the rains water in some wells stands almost at the surface. Groves of forest-like trees in the neighbourhood; surrounded, on the west and south sides by a series of large shallow water-holes connected by drainage channels containing deep deposit of soft brown mud, which is manure; on the north

and east sides by the Gundah Nullah, an old natural waterway which has been improved by cutting, but is now a receptacle for filthy, stagnant water, and drains from the houses on the east side open into it. The Gundah Nullah has been continued to an escape channel of the canal called Krishn Nuddee about a mile to the south of Shamlee, but the natural slope of the country being deficient, the cutting was seen to be swampy and full of rank vegetation.

A house-tax of Rs. 300 per mensem is collected, and 12 public sweepers are employed who confine their labours apparently to the bazaar roadways; an extraordinarily filthy town, even by comparison with others of the same district. In the rains said to be miserable from bad smelling mud, now even much of such mud in holes, so that the atmosphere was very unpleasant in the town in many places. Outskirts, especially to north and east, filthy from fœcal matter, bones, and refuse generally. Water in one well from which many people drank seen to be of a yellowish tinge, evidently from contamination by impurities from great refuse heap near to it. Wherever a well existed there was much filthy mud, the brick-work of the well often broken. Many ruins, all used as receptacles for refuse. Fine wide straight bazaar of good houses and shops.

People depressed, fever disease general in and after the rains; enlargement of the spleen common, small-pox often prevalent; vaccination proceeding here, and good vaccine vesicle seen.

Shamlee is a town which much requires a better Municipal government, much business is transacted in it, about 80 gharries, come with salt to return with sugar, were seen. Nothing will save the people of this town from fever disease so much as a general raising of the site of the town, this has been effected in some of the better parts, and the foundations of the good houses are well raised. The raising of the numerous places of depressed surface should be a first work of any new Municipal authority created. The earth of the great brick-kilns to the south-east of the town might be utilized for this purpose as a commencement, earth from the higher land to the north-west might be added, but no hole should be made or increased anywhere near the town.

330. *Kheree Kurmon* and *Lulaon.*—Two mud-built villages pretty close together, site of the former fairly raised, the site of the latter almost a hillock. Land surrounding them low, a good deal moist in places, many date trees growing, both very filthy from manure heaps, water in the wells much raised from former level, canal irrigation on all sides, much suffering from fever in both places, but no case of enlarged spleen could be found, said, however, to be common.

331. *Bhinswal.*—Inspected on 25th March. Inhabitants 3,120, almost a town; contains 100 brick-built houses, some new ones building, a busy place, much sugar-making, no roadway through the town, one half way through, another around the town; much rice grown all around, principally moonjee; site low, almost hollow around the town, likely to have been always an unhealthy place. In the centre is a mound of earth 30 feet high, now worshipped, said to contain the grave of Peer Ghaib, founder of the town, who placed his buffaloes on it when all around was water; many pigs, much filth of pigs, many large manure heaps outside but close to the town on all sides; water in the wells 8 feet from the surface, in the rains is almost at the surface; lanes generally broken, in places deep with moist filth. To the east a rajbuha, raised on 5 feet embankment, passes. Extensive water-hole to north, wide excavation to east forms part of the north hole in the rains, wide water-hole to south-west close up to houses. The necessity of draining the site and land generally here was recognized long ago and resulted 16 years ago in the making of a cutting in a direction from north-east to south-west which passes the town about 50 yards on its west side, and was especially made for the drainage of an extensive swamp, called Jhundheree Jheel, which has formed where the canal enters and takes up the bed of the previously existing Nuddee along which it courses, I think, pretty generally to its termination near Delhi. This cutting which

carries surplus water towards the Katha Nuddee was seen to be well kept, its banks are raised, and, especially in the neighbourhood of the town, much refuse was seen thrown out upon them. At one or two places the bank is pierced, but it by no means serves as a drain so efficient as the now otherwise utilized Nuddee must have been. The people complained bitterly that in the rains the town was surrounded by water, and inside the town all the site became miserable from mud and stagnant water.

Fever has been prevalent here for many years; the putwaree witnessed to its prevalence for 20 years. Its attack is general, no inhabitant altogether escapes. The inhabitants, mostly Hindoos, (Jâts, Brahmins, and Bunneeahs,) although depressed in appearance seem quite willing to struggle against this misfortune of sickness, and I thought much deserved commiseration.

Death indeed has been busy here for years past, and I gathered, onfairly trustworthy evidence, that the population has considerably decreased in the past 20 years. Enlargement of the spleen is a common ailment here, but most of those so afflicted soon die. Two men with very extensive enlargement of that organ were examined, and the existence of several more so troubled was spoken to by the principal inhabitants.

332. *Salawur.*—A large village of possibly 1,800 inhabitants, contains six brick houses and many mud-built, a neglected filthy place, extraordinarily large manure heaps abound on all sides, air very impure; neighbourhood of wells, mud pools; water in wells six feet from the surface, dull in colour and of unpleasant taste; a rather narrow drainage cutting, also coming from the Jundheree Jheel to reach the Krishn Nuddee, passes this village on the north side, but the banks of the cutting are raised and its serves no purpose of drainage to Salawur.

The site of Salawur is low, almost a hollow; in the rains it becomes surrounded with stagnant water; ague is generally prevalent then and afterwards, many people have died of it here in the past few years, the number could not be learnt. Several persons with very much enlarged spleen were examined.

333. *Thanah Bhawun.*—Inspected on 27th of March. A town of 8,481 inhabitants, said to have contained 20,000 before the mutiny. In the mutiny year a rebel Nawab raised his flag here, and this resulted in the sacking of the town, as many burnt and ruined houses testify now.

A brick-built town, fairly well opened up by four roadways forming a cross and centreing in a circular chouk kept as a grain market. A house-tax of Rs. 226 per mensem is collected, and eleven public sweepers are employed. A fairly clean town as regards its roadways, but filthy cesspools are unusually numerous. The site of the town is fairly raised. It is situated between the irrigated country on the west and the khadir of the Krishn Nuddee on the east, indeed the houses of the town extend to the low land of the Nuddee, but there now all seemed to be in ruins. Evidences of a condition of greater importance in former times may be seen in many parts of the town, even now it is inhabited by influential Mahomedans, and is essentially a Mahomedan town, the principal men of which did not give me friendly greeting. But Hindoos are pretty numerous, and have an ancient hold here in the Bhawun, which is a small temple to Devee, situated in a narrow street, and people come from far to worship there. New houses are rising in places and some return of prosperity may be expected.

On the north side is the only extensive water-hole in the place. The water in the principal well stood at 12 feet from the surface. In the rains it rises to six feet, and in some places almost to the surface.

Fever is very prevalent here. The putwaree's report showed that 383 people died last year, nearly all of fever or its consequences.

334. *Nannoutah.*—Inspected on the 28th of March. A small brick-built town of perhaps 3,000 inhabitants, mostly Mahomedans. Site well raised, but surrounded by water-holes, one to west extensive. Irrigated lands on all sides, many groves around, trees close, foliage dense, water in wells stands at 15 feet from the surface, in the rains at 10 feet; of 12 wells the water of ten is brackish, and there are but two wells with good water in the town.

A house-tax of Rs. 121 per mensem is collected, and six public sweepers are employed. They keep the more public ways in fair order. Ruins and heaps of bricks and refuse in places,—otherwise a clean town.

Ague very prevalent here, many persons die of it every year after the rains. Enlargement of the spleen common amongst survivors, five persons examined with it, one with very prominent abdomen, solely from this cause; zemindars and principal inhabitants Puthans, Syuds, Sheiks as a rule; fine earnest men of saddened aspect. They openly expressed the opinion that canal irrigation caused the sickness prevalent by changing the nature of the drinking water, and said they would be glad if canal irrigation ceased, then they would return to well irrigation and lower the spring level which used to be 30 feet from the surface, and then the water was not bitter.

335. *Rampore.*—Inspected on 29th of March. A town of 8,464 inhabitants, site rather low, almost level. A house-tax of Rs. 246 per mensem is collected, six public sweepers employed. Fairly clean town, excepting drainage tanks of wells, and many cesspools generally neglected and filthy. Town, except bazaar, undrained, no made way in it. Extensive water-hole to south, another to north-west, a third to north. Land irrigated from canal on all sides, where water-holes do not intervene the town is surrounded by dense groves and gardens, many filthy places and manure heaps in outskirts, much filth of pigs used as scavengers, water in principal well 20 feet from the surface, water bitter in many wells, many brick-built houses, some with handsome fronts, mostly residences of Suraogees, who, pretty numerous here, have recently built a fine gilt spire Jain temple. Houses much crowded, dividing ways crooked and narrow. Inhabitants mostly Hindoos; but many Mahomedans reside here, principally bangle-makers who work six large ovens; also the tomb of Sheikh Ibrahun Peer, attracts many people to worship, especially in June, when a fair is held in and about the town for that purpose.

Four public latrines recently made in outskirts, small mud enclosures, not used and useless; small slaughter-yard just made outside very useful.

Ague is prevalent here every year and often terminates fatally, cases of enlarged spleen were said to exist, but could not be produced. No Dispensary here.

Rampore is a town which much requires a better Municipal government.

336. *Saharunpore.*—A town, almost city, of 44,000 inhabitants. Inspected on 30th, 31st of March and 1st of April; an important, busy city, and apparently increasing in importance. Close to it an important Civil Station, lately increased in importance by the addition of many railway buildings. Principally, the Civil Station containing the stud and botanical garden establishments, is divided from the city by the Dumolah Nuddee, to cross which low bridges are provided; but the Civil Station extends to the city side of the nuddee, and the new railway buildings and station are all there; and it is fair to say the nuddee which flows past the north-west outskirt of the city runs through the centre of the Civil Station.

Saharunpore City possesses a Municipal Government, and the Municipal Income for 1868-69 was Rs. 25,924, and 66 public sweepers are employed. Its site is low and partakes naturally of the character of a Terai land, with water near the surface; all the surrounding land, as a rule, is now cultivated by canal irrigation. To the west outskirt is the Rao-wala Jor, an extensive permanent water-hole to which all the city site drains

on the west side; the water surface there, at the time of my inspection, was fully 200 yards square: a cutting called Craigie Nullah, from the Rao-wala Jor, coursing round the west and south outskirt of the city to reach the Dumolah, was made 20 years ago and suffices to prevent any serious overflow of the water-hole. The cutting was seen to be dry and in fair order: within the north-east outskirt is the Paondhoie Nuddee, a tributary of the Dumolah which it joins just below the city. In places ghats as steps have been built along the Paondhoie, which was seen, however, to be used as a general receptacle for animal and vegetable refuse on all sides. Its bottom was seen to be deep with mud, a little clear water flowing on it; jungle growths plentiful in it, and men were seen washing themselves with its water, after defœcation at its border; at another place a man was seen drinking the water. The city is entered from the Civil Station by a road carried across a sunk way or now dry water-course, leading down to the Paondhoie; this dry water-way was seen to have its bed broken into holes and the public sweepers were emptying their refuse-baskets into the holes.

The houses of the city are mostly brick-built, many handsome; many new ones building; the Gunj important, busy; the bazaar-way narrow but long, lined by good shops, the floors raised three feet high; the bazaar of a thriving town certainly. City pierced in many directions by well made, well kept kunker roadways; many open, deep, narrow brick drains exist, their contents too often neglected impurities. Many ways, without thoroughfare and considered private, exist. All those examined were filthy, uncared for, unswept; and where in them centre drains have been made, the drains were seen to be filled to overflowing with house-sewage. East of Paondhoie, crossed by low bridges, is one Mohullah, Kalépa, the site of which is well raised. West of Paondhoie are many mohullahs, the remainder of the city. Their site is low, and, excepting the bazaar roadway, very little raised above the surrounding country. The water in the city wells stood at from 7 to 10 feet from the surface. In the rains it stands at times very much nearer to the surface, so that a long-armed man, it was said, might dip water then from some of the wells.

Cultivation extends close up to the city on the west side, and generally around the city there is an extraordinary amount of vegetation.

Mahomedans are numerous in this city, and form an influential society. They are now building a brick mosque after the pattern of the Delhi Jumae Mosque.

I think evidence might be gathered of facts showing that fever has been prevalent at Saharunpore for many years past,—perhaps from its foundation, 600 years ago, by Haroun Chistie. As, for example, the abandonment on that account, many years ago, of the cantonment which existed in its neighbourhood; but certainly, since irrigation from the canal was introduced, fever disease has greatly increased, as might be expected. Always here, speaking of comparatively modern towns, the spring level must have been near the surface; always, I think the complaint, from a sanitary point of view, would have been of excess of moisture, of drainage difficulty, after rain-fall. I must say I am not able to understand why a country so situated should have been thought to require canal irrigation. The water was near the surface, there was grass in abundance, the people had their bullocks, irrigation from the wells could be carried on even by means of the persian wheel in many places, and, while sufficing for the certain growth of good crops, helped to lower the spring level, to the great benefit of the people's health. Now all this is changed. The wells are full of water of such bad quality, too, that many of the inhabitants complained of it, and, for myself, while in camp near to the city there, I could not drink of the water from the first four wells tried, because of its impurity, apparently from decomposed vegetable matter. In the city the water is so bad that the inhabitants seem to care little about the careful management of the wells, which, as a rule, have their brick-work broken, are without surrounding platforms, their precincts unpleasant, with a wide circle of moist impurities. The drainage difficulty, too, has been increased; the creation of any efficient drainage cutting made more difficult, as the moist, filthy state of the Goa Nullah, a partly artificial water-way, witnessed to.

Disease is very prevalent at Saharunpore in the forms of rheumatism, influenza, fever, and at times small-pox as an epidemic. But fever in the form of ague is the general complaint. This every inhabitant expects to have, sooner or later, and is not often disappointed. Enlarged spleens are not uncommon; and amongst the passers by on the road-way, I found, with little delay, two persons so afflicted.

337. *Deobund.*—Inspected on 3rd April. A very old brick-built Hindoo town ; believed by the principal inhabitants to be 6,000 years old; 21,714 inhabitants; Municipal Government—probable income Rs. 7,000. Twenty six public sweepers employed. Site well raised, surrounded by water-holes between 30 and 40 in number, but none permanent. Four bazaars, Chota, Burra, Sathhutter, Bahra—all well kept, except Bahra, in the outskirts, which is filthy, especially in ruinous houses and corner places. No kunker or brick-made roadway in the town. Bazaar roads well made of earth and well drained at each side, smaller roadways all broken and undrained. Well built new tehseelee on old Fort mound about centre of town. Lock-up large, well ventilated. Famous old mosque, 600 years old, just outside tehseelee gate.

Site of the town well drained naturally to south to Jor there, a wide natural waterway or depressed surface which turns to the east to reach the West Kalee Nuddee, distant 2½ miles. Jor now dry, except at one place half a mile to east of the town, where it forms a water-hole, the west and north banks of which are crowded with temples and ghâts and a large collection of suttee monuments, the whole called Davi Pund, and much frequented by pilgrims.

There is no canal irrigation within eight miles of Deobund, and the water in the principal town well stood at thirty-five feet from the surface. The average depth from the surface in the wells in the lower ground outside the town was twenty-seven feet. Before the canal water was brought to within eight miles the average depth was said by the zemindars to have been thirty-four feet. The sites around the wells generally were seen to be much neglected, moist, and filthy.

Fever was said to be prevalent in August, but not complained of as general or unusually fatal. No cases of enlarged spleen could be found, and that condition was said to be uncommon.

The Mahomedans of this town are a numerous and influential class. There are 42 mosques in the town. In connection with one, a private school of 180 boys who were studying the Khoran and other Arabic and Persian books, was seen ; a famous school, to which boys come from far ; 40 poor scholars there are fed by the resident Mahomedans.

Small-pox is the epidemic disease most complained of; 4 boys blind from that cause were seen. No vaccinator had visited the town up to date, this season.

The butchers' slaughter place is very properly situated outside the town. Many heaps of refuse, broken bricks, sweepings, and rubbish generally, existed in corner places amongst the houses of the town. Six public latrines have been provided in the outskirts; small enclosures little frequented. The attendant sweeper at one thought perhaps 100 people visited his daily. The people go out to a distance, and the outskirts were seen to be fairly clean.

The houses are generally well built, in good repair; ruins are comparatively scarce.

Railway communication has been granted to this town, and it seems to be increasing in importance. Its bazaars more busy than usual in a country town.

338. *Munglour.*—Inspected on 4th of April. A town of 10,206 inhabitants. A house-tax of Rs. 201 per mensem is collected ; sixteen public sweepers are employed.

Inhabitants mostly Mahomedans, especially Julahas, now impoverished. The few rich zemindars, Hindoos.

A remarkably quiet country town, made up of large scattered brick-built houses, surrounded and divided by mud-built houses and imbedded in groves of trees or luxuriant crops; canal irrigation on all sides. Irrigation excessive, even water-hole to west kept filled from canal for watering bullocks.

The south outskirt is a large depression, result of former brick-making, now cultivated and very damp; irrigated from the canal; site of the town fairly raised, its roadways all unmade, broken. To the west is a large excavation where brick-making is now going on; small water-holes on all sides of the town; many collections of refuse in the town; many shops in the bazaar ruinous. Town nowhere drained. Water in the wells 18 feet from the surface; before canal irrigation was introduced it was upwards of 30 feet from the surface. In the rains water collects in many places about the town.

The people of this town looked, as a general rule, sickly, their faces yellow, some seemed half-witted. Undoubtedly there is a general condition of suffering here. The common and pretty universal disease is ague, in and after the rains; enlargement of the spleen is common; of perhaps twenty people who stood around me, three were found so affected, one to a great extent.

339. *Roorkee.*—Inspected on 5th April. A town of 7,000 inhabitants, governed by the Cantonment Magistrate of Roorkee. A tax of Rs. 260 collected; 13 public sweepers employed. Roorkee evidently was a mud-built village on the right bank of the wide Soolanee Khadir, now a town opened up by well made roadways in the shape of a cross, and lined by good shops. The four principal roadways centreing in an open chowk or market-place. These principal roads kunker-made and well-drained on each side; site well raised. The Ganges Canal, its bed raised above the site of the outskirts, passes the town to the east.

Between the canal and the town are extensive permanent water-holes in great part excavated at the time the canal was made. These water-holes are on the east and south sides of the town, and presented at places a considerable surface of uncovered mud; on the west side of the town the land is low and moist, and the Mussoorie Road is carried through it on a raised embankment; on the north side is the Khadir of the Soolanee River fully a mile wide, always a moist, green land, sometimes containing a considerable river, the town extends down and a little on to this Khadir land, and there the water in the wells stood at six feet from the surface. In the rains it stands almost at the surface. In the higher parts of the town the water stood at 21 feet from the surface.

Town remarkably clean, well kept, everywhere evidently well governed. The Butchers' quarter carefully managed. The low moist land on the west and north sides bears dense crops which grow close up to the houses, but rice crops are not allowed to be cultivated near to the town.

Ague is a common complaint in this town, and I should think, seeing its situation on the borders of the Terai, the inhabitants have always been prone to suffer in this way. No doubt the creation of the canal bringing greatly increased moisture to the place, although no land near Roorkee is irrigated from the canal, has increased that tendency; for the canal, far from draining the town, leaves stagnant water behind in places as it flows along, and especially at the extensive low water-holes, and at a place where water was seen to be running from the canal to stagnate at the north outskirt, where the washermen congregate. The local belief was that 150 persons had died here of ague, or its consequences, in the three months which succeeded the past rains. Enlarged spleen is a common complaint, and four persons so troubled were examined.

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340. In the opening paragraphs of this part of my report I have recorded the opinion that excessive irrigation in a country not prepared for it, has been and is the cause of the ague disease which is so prevalent in these districts, and I believe that no remedies against this prevalence will be of permanent benefit excepting a lessened

amount of irrigation and a better preparation of the sites of the centres of population as places of residence for people who live surrounded by a much irrigated country.

341. Taken together I think these remedies would be certain of the desired effect; but either taken separately would be potent for good; and this I say with reference to the irrigated country generally; but I believe that for places where the average depth from the surface of the ground to the surface water in the wells is less than 20 feet before canal irrigation is introduced, it is not proper, if the health of the inhabitants concerned is to be considered, to permit canal irrigation there at all. On the contrary, I think in countries so situated, irrigation from the wells, which can be cheaply and efficiently performed, should be encouraged to the utmost possible extent. And with reference to the new canals which are to traverse Rohilkhund, I think the question of the existing depth of the spring level in that country, generally, a subject well worthy of investigation. For if my observations of the year before last are correct, the general spring level of that country is less than 20 feet in depth from the surface now. If that is true the result of canal irrigation there will be, I should think, what it has been in the upper districts of the Doab, a great increase of ague disease, much suffering for many people, many premature deaths.

342. I do not believe that, peopled as these provinces are, there is any danger at all of depopulation anywhere in these fertile, canal irrigated districts; on the contrary I believe that for one man who dies of ague there, there are a hundred ready, for the sake of comparative plenty and independence, to take his place, knowing the danger, hoping to become acclimatized, willing to risk the result.

343. But though there need, I think, be no fear of want of men to till the ground, a great and, I think, a certain fear may be entertained that unless efficient action is taken to remedy existing conditions, the wide spread suffering which now exists and has existed for several years amongst the people of Saharunpore, Moozuffernuggur and Meerut will continue to increase, until, as our Mortuary Statistics improve in correctness, the deaths from ague there will be seen to be so numerous that sudden and therefore, perhaps, hurtful action may be imperatively demanded.

344. I would therefore very earnestly counsel the gradual but certain establishment:—

A.—Of such measures as may conduce to a lessened amount of canal irrigation:—

1*st*.—By discouraging the cultivation of rice wherever it was not cultivated before canal irrigation was introduced, and perhaps the best way of doing this would be to increase the land-tax of such land so long as rice is cultivated on it.

2*nd*.—To introduce some method of distribution which shall require an increase to the manual labour now required to place the water so that it may spread itself over the fields.

3*rd*.—To encourage a return to the ancient form of irrigation from wells in all places where the water in the wells now stands at less than 10 feet from the surface at any time of the year.

B.—Of such measures as may improve the town and village sites:—

1*st*.—By raising them to the utmost possible extent, levelling and consolidating the surface.

2*nd*.—By requiring a return to irrigation, from wells, of the land for a certain distance around every town and village.

3*rd*.—By draining permanent water-holes to the nearest nuddee, the earth removed from the necessary cutting being utilized for the improvement of thetown or village site.

4th.—By planting trees between any noted source of malaria and the town or village site. By removing trees where they stand too thickly and serve no good purpose.

The money required for the improvement of village sites might be provided from the Municipal Cess.

The introduction even of measures such as I have recommended, would be a work of time. In the meanwhile I think something should be done for the existing sufferers. I wish that the medicine best calculated to cure the prevailing ailment could be brought within the reach of every sufferer, for I believe the result would be very satisfactory, the resulting gratitude very real. But I cannot believe this to be possible. Yet something should certainly be done, and I think if quinine depôts could be established for the three months, August, September and October of each year in those districts at every tehseelee where fever is most prevalent, some considerable measure of relief would be afforded. The medicine to be sold, at the discretion of the tehseeldar, in properly divided doses, to every applicant at half its cost price,—the other half to be granted as a charitable contribution from the Canal Revenues.

If this recommendation should meet with the approval of Government, and be brought into operation, I think a slight colouring of the quinine with turmeric, before issue, would be instrumental in preventing its purchase for re-sale.

SANITARY COMMISSIONER'S OFFICE,
ALLAHABAD:
The 5th of August, 1870.

C. PLANCK,
Sanitary Commissioner,
N.-W. Provinces.

APPENDIX.

[WITH *reference to the Statements in this Appendix, it should be understood that they have been prepared from the returns received from District Officers, but cannot be accepted as correct, or of value, excepting as showing the number of deaths from the three principal causes—fever, cholera, and small-pox—and the places where these diseases are most prevalent, and this only with some approximation to the truth.*]

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS I—ZYMOTIC DISEASES.							
		ORDER I.—MIASMATIC DISEASES.							
		Remittent Fever.		*Small-pox.*		*Dysentery and Diarrhœa.*		*Cholera.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	363	207	15	15	143	108	1	...
	Seharunpore, ...	6,237	4,952	663	443	601	293	117	65
	Moozuffernugger, ...	5,211	4,513	808	266	484	358	68	98
	Meerut, ...	5,323	4,136	2,774	2,210	271	637	325	240
	Boolundshuhur, ...	3,624	2,933	3,382	2,958	732	585	83	72
	Allygurh, ...	3,610	2,916	3,850	2,599	919	682	272	157
KUMAON.	Kumaon, ...	905	1,177	5	2	457	275	26	28
	Gurhwal, ...	1,219	773	2	...	535	702	...	...
ROHILKHUND.	Bijnour, ...	2,579	1,799	32	5	225	156	48	20
	Moradabad, ...	2,968	2,348	422	318	819	500	124	71
	Budaon, ...	3,245	2,217	305	195	22	47	755	386
	Bareilly, ...	8,230	5,883	359	270	1,254	1,031	548	379
	Shahjehanpore, ...	4,849	3,617	357	306	697	538	137	120
	Terrai, ...	1,367	1,059	3	3	14	10	...	...
AGRA.	Muttra, ...	4,130	3,297	3,486	2,562	934	773	632	423
	Agra, ...	5,853	5,370	4,563	3,239	1,018	797	1,251	764
	Furruckabad, ...	2,959	2,204	2,452	1,399	486	623	192	133
	Mynpoorie,... ...	3,022	2,712	2,019	2,191	166	130	188	161
	Etawah, ...	2,606	2,095	2,239	1,322	129	88	284	165
	Etah, ...	2,506	1,748	2,212	1,302	212	257	132	110
JHANSIE.	Jaloun, ...	1,058	954	483	1,067	157	145	1,660	932
	Jhansie, ...	4,315	3,276	1,816	1,494	904	672	1,123	671
	Lullutpore,... ...	2,074	1,612	520	452	1,665	1,162	1,460	1,242
ALLAHABAD.	Cawnpore, ...	5,774	4,340	3,703	2,624	894	658	1,609	1,192
	Futtehpore, ...	3,339	2,853	3,329	2,805	641	465	529	423
	Banda, ...	7,170	5,790	3,777	3,269	1,063	689	785	608
	Allahabad,... ...	3,046	1,771	776	651	257	224	1,492	1,422
	Humeerpore, ...	4,222	3,347	2,346	1,752	548	387	1,235	824
	Jounpore, ...	4,218	2,432	1,135	635	137	79	1,623	1,240
BENARES.	Goruckpore, ...	6,638	3,611	234	135	477	169	4,970	3,623
	Bustee, ...	1,636	1,551	160	208	49	29	2,511	1,838
	Azimgurh, ...	4,348	2,849	701	453	80	27	5,304	3,512
	Mirzapore, ...	3,688	2,678	1,415	933	237	211	2,831	1,964
	Benares, ...	4,728	3,532	658	533	260	221	1,931	1,596
	Ghazeepore, ...	4,899	2,516	645	517	206	61	5,764	5,048
	Total, ...	1,32,959	99,268	51,637	39,133	17,693	13,759	40,010	29,532

DIX A.

CORDING TO DISEASES IN 1869.

CLASS I.—ZYMOTIC DISEASES—(*Continued.*)

ORDER I.—MIASMATIC DISEASES—(*Continued.*)

Ague.		*Hooping-cough.*		*Croup.*		*Rheumatism.*		*Measles.*		*Influenza.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	45	40	...	...	4	5	...	...	15	4
...	...	419	289	1,190	851	7	8	...	...	4	...
401	386	758	872	2	...	...	...	...	...	2	55
131	36	...	...	...	...	8	...	...	...	...	...
22	48	100	114	15	28	...	1	...	...	13	27
41	34	80	60	...	...	2	...	...	...	21	28
196	140	283	120	16	8	12	24	180	136	58	29
...	...	152	118	...	...	17	28	...	...	...	...
...	...	61	33	...	...	4	2	...	...	...	...
312	288	160	178	176	81	41	1	...	...	...	...
51	27	61	49	...	...	2	1	...	...	...	...
1,712	1,433	632	499	199	133	14	14	...	...	34	11
500	385	100	68	...	...	4	1	1	...	3	3
...	...	...	...	...	...	54	24	...	...	...	...
22	14	...	...	222	156	2	2	...	...	...	...
34	13	269	168	...	...	55	50	...	...	106	84
...	...	34	16	...	...	...	...	...	...	...	...
...	...	146	148	...	...	15	14	...	...	...	...
...	...	...	...	...	...	2	...	...	...	...	...
...	...	33	14	...	...	115	95	...	...	...	...
...	...	185	103	...	...	55	19	...	...	...	...
208	176	561	480	...	...	178	129	...	...	28	22
...	...	...	...	...	...	109	77	...	...	128	80
964	752	...	...	...	...	187	123	...	...	...	...
42	29	55	28	...	...	41	25	80	60	168	116
...	...	581	321	...	...	11	14	...	...	171	161
121	244	165	157	...	...	193	256	...	...	96	119
4	2	141	89	157	89	18	11	28	17	190	152
112	103	...	...	168	81	...	...	...	...	...	...
50	22	1	...	...	...	11	4	...	...	9	3
43	33	...	...	...	...	...	...	...	...	2	1
798	524	25	7	...	...	...	...	...	...	...	...
6	2	70	54	...	...	7	4	...	...	1	...
...	...	10	7	...	...	2	1	...	...	...	...
1,219	460	...	...	...	...	...	...	...	...	...	...
6,989	5,151	5,127	4,032	2,145	1,427	1,170	933	289	213	1,049	895

APPEN

REGISTER OF DEATHS AC

CLASS I.—ZYMOTIC DISEASES—*(Continued.)*

ORDER I.—MIASMATIC DISEASES—*(Continued.)*

Divisions.	Districts.	*Boils.*		*Typhus Fever.*		*Quinsy.*		*Child-bed Fever.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon,	10	8	...	...	...	...	...	...
	Saharunpore,	23	19	...	...	1	...	...	...
	Moozuffernugger,	61	47	10	20	...	...	...	...
	Meerut,	19	6	...	...	...	...	...	...
	Boolundshuhur,	15	42	8	15	...	...	...	...
	Allygurh,	...	...	17	16	...	1	...	34
KUMAON	Kumaon,	19	8	122	73	...	...	...	70
	Gurhwal,	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour,	21	13	2	1	3	1	...	9
	Moradabad,	71	54	...	...	9	3	...	...
	Budaon,	12	17	...	...	...	...	...	...
	Bareilly,	25	35	62	63	4	...	...	33
	Shahjehanpore,	45	54	595	505	...	1	...	16
	Terrai,	...	...	...	...	...	...	...	...
AGRA.	Muttra,	52	43	7	6	...	...	...	...
	Agra,	86	92	...	...	...	...	...	4
	Furruckabad,	...	...	...	...	...	...	...	...
	Mynpoorie,	...	...	13	10	...	...	...	6
	Etawah,	...	...	...	...	...	...	...	...
	Etah,	...	...	...	...	...	...	...	...
JHANSIE.	Jaloun,	...	...	2	3	...	...	...	...
	Jhansie,	29	17	...	...	...	...	...	...
	Lullutpore,	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore,	...	...	74	88	...	...	...	...
	Futtehpore,	11	5	63	42	...	...	...	...
	Banda,	...	...	...	...	...	...	...	...
	Allahabad,	72	77	...	...	...	...	...	
	Humeerpore,	16	13	15	13	1	...	...	1
	Jounpore,	83	61	...	...	...	...	...	...
BENARES.	Goruckpore,	2	3	282	148	15	3	...	8
	Bustee,	...	1	...	...	...	...	...	...
	Azimgurh,	19	13	...	...	...	...	...	...
	Mirzapore,	30	28	...	...	...	...	...	...
	Benares,	...	...	...	...	...	...	...	8
	Ghazeepore,	50	69	...	...	...	...	...	1
	Total,	771	725	1,272	1,003	33	9	...	190

DIX A.—*(Continued).*

CORDING TO DISEASE IN 1869.

CLASS I.—ZYMOTIC DISEASES—*(Continued.)*

ORDER I.—MIASMATIC DISEASES.—*(Continued.)*

Erysipelas.		*Opthalmia.*		*Carbuncle.*		*Diphtheria.*		*Plague.*		*Mumps.*	
Males.	Females.	Males	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
1	...	2	3	...	...	3	2	1	...	16	12
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
22	23	...	...	...	...	5	12	...	...	...	...
3	9	4	1	...	...	4	1	15	5	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	12	9	...	...	...	...	624	427	3	...
3	12	9	7	...	...	...	...	...	...	...	...
7	6	5	...	...	...	170	116	82	45	12	6
...	...	1	...	...	...	3	6	...	...	1	2
...	...	...	...	...	...	3	1	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	9	21	...	...	21	19	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	39	35	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1	...	...	...	...	...	...	...	...
...	...	4	2	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	78	75
5	...	...	...	...	...	...	...	9	5	1	3
...	...	...	...	...	...	...	...	...	...	...	...
14	9	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
15	8	...	...	...	...	...	...	...	...	5	3
...	...	...	...	...	...	...	...	...	...	...	...
70	67	85	79	...	...	209	157	728	482	118	102

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS I.—ZYMOTIC DISEASES—(*Continued.*)							
		ORDER I.—MIASMATIC DISEASES—(*concluded.*)							
		Scarlet Fever.		*Hospital Gangrene.*		*Leprosy.*		*Syphilis.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	...	...	2	...	16	1	1	...
	Seharunpore, ...	...	...	...	...	22	5	19	5
	Moozuffernugger, ...	...	...	...	...	44	21	20	16
	Meerut, ...	...	...	...	...	38	21	34	15
	Boolundshuhur, ...	...	...	...	...	23	11	6	...
	Allygurh, ...	...	...	...	...	26	8	15	3
KUMAON	Kumaon, ...	1	4	...	...	53	19	28	12
	Gurhwal, ...	...	...	...	...	21	13	4	12
ROHILKHUND.	Bijnour, ...	...	...	...	...	33	2	6	...
	Moradabad, ...	...	...	...	...	31	2	10	1
	Budaon, ...	...	...	...	...	19	4	24	22
	Bareilly, ...	...	...	...	...	90	11	23	7
	Shahjehanpore, ...	...	...	...	...	54	7	12	4
	Terrai, ...	...	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	...	...	18	1	8	1
	Agra, ...	...	...	...	...	19	4	32	5
	Furruckabad, ...	...	...	...	...	6	3	40	15
	Mynpoorie, ...	...	...	...	...	9	9	20	8
	Etawah, ...	...	...	...	...	23	20	15	8
	Etah, ...	...	...	...	...	26	2	6	...
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	1	...
	Jhansie, ...	...	...	...	...	22	2	4	1
	Lullutpore, ...	...	...	...	...	4	4	19	5
ALLAHABAD.	Cawnpore, ...	...	...	...	...	8	1	8	1
	Futtehpore, ...	...	...	...	...	9	5	5	1
	Banda, ...	...	...	...	...	14	1	...	...
	Allahabad, ...	...	...	...	...	80	84	45	7
	Humeerpore, ...	1	...	...	...	15	4	8	1
	Jounpore, ...	...	...	...	...	8	2	2	...
BENARES.	Goruckpore, ...	...	...	...	...	9	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	...	...	4	2	8	2
	Benares, ...	...	...	...	...	6	5	12	3
	Ghazeepore, ...	...	...	...	...	15	7	20	...
	Total, ...	2	4	2	...	765	281	455	155

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

CLASS II.—ZYMOTIC DISEASES—*(Continued.)*

ORDER II.—ENTHETIC DISEASES.

Gonorrhœa.		*Polypus.*		*Bubo.*		*Elephantiasis.*		*Phymosis.*		*Orchitis.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
4	1	...	...	...	...	...	...	...	...	...	...
8	1	...	...	...	...	18	15	25	8	...	...
12	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	1	8	1	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...
3	6	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...
12	1	...	...	...	...	22	13	7	...	3	...
3	...	...	...	...	...	...	2	1	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...
3	1	...	...	...	...	...	...	...	...	...	...
6	5	...	...	...	...	...	...	...	...	...	...
4	2	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
2	2	...	...	...	...	...	...	...	...	...	...
...	...	6	3	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...
9	1	...	...	...	...	...	...	...	...	...	...
27	6	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
3	2	...	...	4	2	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	1	...	...	...	1	...
22	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
163	28	7	3	4	2	42	38	36	8	6	...

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS I.—ZYMOTIC DISEASES—(*Continued.*)							
		ORDER II.—ENTHETIC DISEASES—(*concluded.*)						ORDER III.—	
		Itch.		*Strictura Urethra.*		*Intemperance.*		*Opium-eating.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	2	...	...	...	...	...	...	...
	Saharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernugger, ...	...	...	...	...	...	...	1	...
	Meerut, —	...	...	...	...	...	...	...	...
	Boolundshuhur, ...	...	...	...	...	...	...	...	...
KUMAON.	Allygurh, ...	...	...	...	...	...	...	3	...
	Kumaon, ...	...	...	...	...	...	...	...	1
	Gurhwal, ...	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour, ...	...	...	...	...	...	...	...	...
	Moradabad, ...	...	...	...	...	...	...	...	...
	Budaon, ...	...	...	...	...	...	...	...	...
	Bareilly, ...	...	...	...	...	4	...	...	1
	Shahjehanpore, ...	...	...	...	...	...	...	20	71
	Terrai, ...	...	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	...	...	...	...	...	...
	Agra, ...	...	...	...	...	...	...	...	1
	Furruckabad, ...	...	...	...	...	...	...	8	14
	Mynpoorie, ...	...	...	...	...	...	...	3	3
	Etawah, ...	...	...	...	...	...	...	...	...
	Etah, ...	...	2	...	...	1	...	3	2
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	...	...
	Jhansie, ...	...	...	...	...	...	...	...	...
	Lullutpore, ...	...	...	...	...	1	...	...	...
ALLAHABAD.	Cawnpore, ...	...	...	...	...	...	...	...	...
	Futtehpore, ...	...	...	...	...	...	...	2	4
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	...	...	...	...	...	...	1	...
	Jounpore, ...	...	...	...	...	...	...	...	...
BENARES.	Goruckpore, ...	...	1	2	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	...	...	4	5	...	...
	Benares, ...	...	...	...	...	...	...	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	2	3	2	...	10	5	41	97

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

CLASS I.—ZYMOTIC DISEASES—*(Continued.)*

DIETHETIC DISEASES.		ORDER IV.—PARASITIC DISEASES.									
Scurvy.		*Worms in the nose.*		*Worms (kind not specified.)*		*Guinea worm.*		*Tape worms.*		*Thrush.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	33	15	...	...	...	...	...	...
...	...	...	...	1	3	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	3	7	...	...	...	...	...	...	...	...
...	...	...	1	3	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	2	1	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	4	26	4	...	...	...	2	1	...	...
1	2	11	19	3	2	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	3	4	...	...	...	...	...	...	...	...
...	...	23	18	...	...	...	1	...	...	...	...
...	...	6	2	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	6	3	...	...	...	...	...	...	...	...
...	...	3	6	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	2	3	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	11	17	...	...	...	...	...	...	4	1
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	13	12	2	1	1	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
1	2	89	119	46	22	1	1	2	1	4	1

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS I.—ZYMOTIC DISEASES.—(*Concluded.*) ORDER IV.—PARASITIC DISEASES.—(*Concluded.*) *Scabies.*		CLASS II.—CONSTITU ORDER I.—DIETHETIC *Dropsy.*		*Anæmia.*		*Gout.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Meerut.	Dehra Doon, ...	...	...	...	...	...	...	...	...
	Saharunpore, ...	...	...	19	4	...	...	...	...
	Moozuffernugger, ...	...	...	49	22	...	...	...	2
	Meerut, ...	...	...	...	...	...	...	...	...
	Boolundshuhur, ...	...	...	3	4	...	...	...	...
	Allygurh, ...	...	...	13	10	1	1	...	...
Kumaon.	Kumaon, ...	...	...	14	18	17	11	...	...
	Gurhwal, ...	...	...	18	17	...	...	...	...
Rohilkhund.	Bijnour, ...	...	...	42	26	5	1	...	...
	Moradabad, ...	...	...	3	11	...	...	...	...
	Budaon, ...	...	...	...	...	...	...	...	...
	Bareilly, ...	...	...	183	119	38	20	...	...
	Shahjehanpore, ...	...	...	6	7	1	...	...	...
	Terrai, ...	...	...	11	6	...	...	...	...
Agra.	Muttra, ...	...	...	48	31	...	...	...	...
	Agra, ...	...	...	60	36	...	...	5	...
	Furruckabad, ...	...	...	4	2	...	...	148	137
	Mynpoorie, ...	...	...	34	34	...	...	...	...
	Etawah, ...	...	...	6	...	...	...	...	...
	Etah, ...	...	...	3	5	...	...	...	...
Jhansie.	Jaloun, ...	...	...	1	...	...	...	...	1
	Jhansie, ...	...	...	2	1	...	...	52	54
	Lullutpore, ...	...	...	1	...	...	...	...	...
Allahabad.	Cawnpore, ...	...	...	4	4	...	...	...	...
	Futtehpore, ...	...	...	1	3	...	...	...	...
	Banda, ...	...	...	19	4	...	...	...	...
	Allahabad, ...	...	...	27	66	...	...	...	...
	Humeerpore, ...	...	...	23	3	349	194	...	...
	Jounpore, ...	...	...	255	44	...	...	10	13
Benares.	Goruckpore, ...	...	...	2	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	59	21	...	...	...	...
	Benares, ...	...	...	4	4	...	...	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	...	...	885	502	411	227	215	187

DIX A.—(*Continued.*)

CORDING TO DISEASES IN 1869.

TIONAL DISEASES.

DISEASES.		ORDER II.—TUBERCULAR DISEASES.									
Mortification.		*Cancer.*		*Consumption and Phthisis.*		*Tuberculosis.*		*Scrofula, King's evil.*		*Mesenteric disease.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	271	250	202	110	3	1	...	...
...	...	...	...	175	122	...	...	...	...	...	...
...	...	...	...	64	121	...	...	...	...	...	...
...	...	...	...	...	...	1	...	1	...	...	...
3	...	...	...	3	3	...	...	...	...	...	...
...	...	1	...	6	2	...	...	...	...	...	...
24	17	...	...	...	...	...	...	...	...	...	...
...	...	...	...	56	34	...	...	...	...	...	...
...	...	...	...	51	44	...	...	...	...	...	...
...	...	...	...	20	4	...	...	...	...	...	...
8	5	...	...	3	...	...	...	4	3	...	...
...	...	...	...	11	3	...	...	2	1	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	10	17	...	...	...	...	...	...
...	...	...	...	59	75	...	...	...	...	...	...
...	...	...	...	170	213	...	...	...	...	...	...
...	...	...	...	24	24	...	...	2	3	...	...
...	...	...	...	45	25	...	...	...	...	...	...
...	...	16	5	26	25	...	...	2	2	...	...
...	...	...	...	...	1	...	...	...	...	...	...
...	...	...	...	39	37	76	53	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	3	...	...
2	3	29	14	66	33	...	...	...	...	4	4
...	...	...	...	16	8	...	...	...	...	...	...
...	...	...	...	126	41	...	...	...	...	...	...
...	...	...	...	22	6	...	...	...	...	...	...
...	...	...	...	35	16	...	...	...	...	...	...
1	...	...	...	1	1	...	...	2	2	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	14	16	...	...	...	...	2	25
...	...	...	...	96	78	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
38	25	46	19	1,409	1,199	279	163	16	15	6	29

APPEN

REGISTER OF DEATHS AC

CLASS III.—LOCAL DISEASES.

ORDER I.—DISEASES OF THE NERVOUS SYSTEM.

Divisions.	Districts.	*Fits and Epilepsy.*		*Apoplexy.*		*Paralysis.*		*Inflammation of the Brain.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	2	2	...	...	15	4	20	5
	Saharunpore, ...	...	...	1	1	4	3	...	1
	Moozuffernugger, ...	56	30	32	18	1	1	36	32
	Meerut, ...	91	53	...	...	...	...	...	...
	Boolundshuhur, ...	219	161	8	4	1	10	...	...
KUMAON.	Allygurh, ...	94	86	6	2	7	10	7	5
	Kumaon, ...	6	1	2	1	13	8	12	4
	Gurhwal, ...	9	7	...	...	...	...	...	...
ROHILKHUND.	Bijnour, ...	3	6	184	143	6	2	6	4
	Moradabad, ...	4	7	...	...	24	12	16	10
	Budaon, ...	6	5	3	1	8	16	...	...
	Bareilly, ...	60	7	2	2	50	48	111	65
	Shahjehanpore, ...	6	8	65	30	7	6	22	24
	Terrai, ...	1	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	12	4	30	18	...	2
	Agra, ...	17	10	1	...	31	17	14	18
	Furruckabad, ...	6	4	...	...	23	19	118	113
	Mynpoorie, ...	2	3	...	...	35	34	...	...
	Etawah, ...	6	3	...	...	...	...	...	...
	Etah, ...	135	230	5	8	9	2	2	4
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	114	52
	Jhansie, ...	4	...	48	29	3	3	3	3
	Lullutpore, ...	1	3	...	...	...	...	...	...
ALLAHABAD.	Cawnpore, ...	13	5	...	...	2	2	57	54
	Futtehpore, ...	18	2	1	1	3	2	174	101
	Banda, ...	5	4	...	...	...	...	175	132
	Allahabad, ...	48	35	...	...	269	221	...	
	Humeerpore, ...	1	1	...	1	2	2	44	28
	Jounpore, ...	...	...	24	4	23	13	67	3
BENARES.	Goruckpore, ...	...	...	12	8	12	7	...	...
	Bustee, ...	17	18	...	...	...	...	6	24
	Azimgurh, ...	...	...	...	...	...	...	18	4
	Mirzapore, ...	1	4	...	...	25	9	206	162
	Benares, ...	17	4	60	26	45	14	11	...
	Ghazeepore, ...	17	29	...	...	10	25	...	...
	Total, ...	867	728	466	283	658	508	1,239	850

DIX A.—*(Continued).*

CORDING TO DISEASES IN 1869.

CLASS III.—LOCAL DISEASES—*(Continued).*

ORDER I.—DISEASES OF THE NERVOUS SYSTEM.

Neuralgia.		*Madness.*		*Hysteria.*		*Lock-jaw.*		*Inflammation of the Ear.*		*Convulsions.*		*St. Vitus' Dance.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	7	1	1	20	8	...	...	...	...	...	...	...	...
9	12	27	18	2	2	6	...	2	2	...	...	...	...
...	...	94	39	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
72	34	1	...	22	8	23	6	...	...	...	...	...	...
28	27	4	2	16	20	16	6	3	2	...	...	6	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	6	6	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	13	9	...	13	24	15	1	...	...	...	...	...
5	1	3	3	42	26	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	11	3	3	37	22	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	9	10	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	2	2	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	2	3	1	...	...	...	...	...	...	...	...	...	...
...	...	2	2	...	...	...	...	...	...	...	...	...	...
3	3	1	1	...	2	3	4	...	...	...	...	3	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	9	9	...	...	...	...	...	...	...	...	...	...
...	...	2	...	2	1	...	...	...	...	...	...	4	5
...	...	1	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	...	...	2	1	...	...
...	...	28	2	48	30	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	8	13	...	...	...	...	...	...
...	...	3	...	...	...	11	4	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	98	206	102	189	132	92	49	12	10	2	1	13	8

APPEN

REGISTER OF DEATHS AC

CLASS III.—LOCAL DISEASES—(*Continued.*)

ORDER II.—DISEASES OF THE CIRCULATORY SYSTEM.

Divisions.	Districts.	*Fainting.*		*Aneurism.*		*Inflammation of the Heart.*		*Broken Heart.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	...	...	...	...	...	...	...	...
	Seharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernugger, ...	...	...	...	...	7	7	...	...
	Meerut, ...	...	...	...	...	85	132	...	...
	Bookundshuhur, ...	2	...	...	...	9	10	...	...
	Allygurh, ...	...	...	...	...	9	7	...	...
KUMAON.	Kumaon, ...	...	...	...	...	...	...	1	...
	Gurhwal, ...	...	...	...	...	...	...	64	61
ROHILKUND.	Bijnour, ...	...	...	...	...	...	...	...	...
	Moradabad, ...	...	...	...	...	...	...	...	...
	Budaon, ...	8	4	...	...	...	...	6	3
	Bareilly, ...	2	...	42	12	43	21	96	51
	Shahjehanpore, ...	1	...	...	...	36	27	8	4
	Terrai, ...	...	1	...	...	...	...	...	...
AGRA.	Mattra, ...	...	...	...	...	...	...	...	...
	Agra, ...	...	...	...	...	...	...	...	...
	Furruckabad, ...	...	...	...	...	...	...	...	...
	Mynpoorie, ...	...	...	...	...	4	6	...	...
	Etawah, ...	...	...	...	...	166	79	...	...
	Etah, ...	...	...	...	...	...	...	...	...
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	...	...
	Jhansie, ...	...	...	...	...	...	...	...	...
	Lullutpore, ...	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore, ...	...	...	...	...	...	...	...	...
	Futtehpore, ...	...	...	...	...	...	...	8	3
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	...	...	5	...	...	...	1	...
	Jounpore, ...	...	...	...	...	...	...	...	...
BENARES.	Goruckpore, ...	...	...	...	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	...	...	...	...	...	...
	Benares, ...	...	...	...	...	4	2	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	13	5	47	12	363	291	184	122

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

CLASS III.—LOCAL DISEASES—*(Continued.)*

		ORDER III.—DISEASES OF THE RESPIRATORY SYSTEM.									
Palpitation.		*Asthma.*		*Pleurisy.*		*Inflammation of the Lungs.*		*Bronchitis.*		*Bleeding of Nose.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	12	10	...	...	2	1	...	...	...	...
...	...	20	24	...	...	...	...	5	3	...	...
...	...	168	125	49	61	2	4	...	...	...	...
...	...	284	227	316	271	16	13	...	...	...	...
...	...	47	45	...	...	2	1	...	...	...	...
...	...	260	279	...	...	...	...	...	...	...	...
...	...	92	43	10	19	9	12	88	90	...	...
...	...	82	67	...	...	...	...	...	...	...	...
...	...	111	84	36	27	...	...	...	...	...	...
...	...	252	188	...	...	3	3	...	...	...	...
...	...	27	23	...	...	...	...	...	...	...	...
...	...	543	369	25	23	49	31	...	...	...	...
...	...	273	205	7	4	2	1	...	...	...	...
...	...	126	94	...	...	...	...	...	...	...	...
...	...	267	236	...	...	...	...	...	...	...	...
...	...	212	178	...	...	78	23	...	...	...	...
...	...	77	64	...	...	51	39	...	...	...	...
...	...	...	...	...	...	72	32	...	...	...	...
...	...	...	...	...	...	53	31	...	...	...	...
...	...	77	103	...	...	...	...	...	...	...	...
...	...	46	13	...	...	...	...	...	...	...	...
...	...	10	3	...	...	74	41	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	286	274	8	4	...	...	107	92	4	15
...	...	179	173	...	...	9	6	...	...	...	...
...	...	...	...	...	...	...	...	...	...	4	4
...	...	139	108	57	72	17	18	...	...	...	...
...	...	29	20	1	...	53	33	...	...	...	...
...	...	176	117	...	...	...	...	20	12	...	...
...	...	86	52	...	...	4	3	...	...	...	...
...	...	26	16	...	...	...	...	11	10	...	...
...	...	90	52	...	...	...	...	...	...	...	...
...	...	137	163	13	33	...	...	...	...	...	...
...	...	152	100	...	...	...	...	5	3	...	...
...	...	71	39	...	...	...	...	...	...	...	...
...	...	4,357	3,494	522	514	495	289	236	210	8	19

APPEN

REGISTER OF DEATHS AC

CLASS III.—LOCAL DISEASES—(*Continued.*)

ORDER IV.—DISEASES OF THE

Divisions.	Districts.	*Colic.*		*Inflammation of the Spleen.*		*Inflammation of the Liver.*		*Abdominal Dropsy.*	
		Males.	Females	Males.	Females.	Males.	Females.	Males.	Females.
Meerut.	Dehra Doon, ...	53	35	1	...	4	3	...	...
	Saharunpore, ...	263	117	6	5	...	...	28	25
	Moozuffernugger, ...	17	8	24	10	26	17	3	7
	Meerut, ...	86	85	16	6	...	...	...	...
	Boolundshuhur, ...	5	...	14	11	5	4	...	...
	Allygurh, ...	...	...	...	...	...	...	...	...
Kumaon.	Kumaon, ...	19	11	...	...	...	...	...	...
	Gurhwal, ...	...	...	...	...	...	...	...	...
Rohilekhund.	Bijnour, ...	169	51	...	...	...	...	...	...
	Moradabad, ...	79	40	2	...	10	7	...	...
	Budaon, ...	44	28	...	...	15	22	5	2
	Bareilly, ...	1	...	8	2	...	...	...	...
	Shahjehanpore, ...	36	17	...	...	1	1	11	10
	Terrai, ...	101	60	...	...	...	...	...	...
Agra.	Muttra, ...	...	...	...	...	...	...	...	...
	Agra, ...	...	...	1	...	18	12	...	...
	Furruckabad, ...	...	...	26	19	...	...	...	...
	Mynpoorie, ...	61	41	2	1	...	...	6	1
	Etawah, ...	...	...	...	...	75	85	...	...
	Etah, ...	63	23	2	...	...	...	...	...
Jhansie.	Jaloun, ...	19	18	...	...	...	...	...	...
	Jhansie, ...	...	...	2	1	...	...	...	...
	Lullutpore, ...	107	72	...	...	18	11	...	...
Allahabad.	Cawnpore, ...	49	23	1	...	...	...	...	...
	Futtehpore, ...	50	19	15	8	...	...	8	2
	Banda, ...	...	...	7	3	9	4	...	...
	Allahabad, ...	5	12	...	...	19	11	...	...
	Humeerpore, ...	68	28	2	...	...	...	...	...
	Jounpore, ...	230	121	232	86	...	...	...	...
Benares.	Goruckpore, ...	22	11	10	4	61	18	...	...
	Bustee, ...	...	...	7	5	...	...	...	...
	Azimgurh, ...	26	11	66	29	...	...	...	...
	Mirzapore, ...	...	...	5	15	3	...	...	...
	Benares, ...	...	...	240	135	...	...	...	...
	Ghazeepore, ...	...	...	27	7	...	...	...	...
	Total, ...	1,579	831	716	347	264	195	61	47

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

CLASS III.—LOCAL DISEASES.—*(Continued.)*

DIGESTIVE SYSTEM.

Stomatitis.		*Constipation.*		*Piles.*		*Jaundice.*		*Indigestion.*		*Peritonitis.*		*Fistula.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	3	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	4	1	...	...	...	...	...	...	2	...
17	10	4	...	...	...	2	...	4	2	...	...	...	...
306	79	...	...	1	...	...	...	...	...	...	...	...	...
4	1	15	13	...	...	...	...	...	...	...	...	12	22
...	...	18	1	3	...	...	...	...	...	...	...	...	...
3	3	...	...	...	...	...	...	18	41	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	2	...	2	1	...	...	...	...	...	...
...	...	...	...	3	5	1	...	17	8	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	162	70	3	...	26	13	22	7	...	...	2	...
39	42	7	2	4	1	1	...	3	2	1	1	...	...
...	...	...	...	...	...	...	...	6	3	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	8	...	...	3	2	9	24	...	...	...	...	...	...
...	...	...	...	32	13	...	...	22	22	...	...	...	...
...	...	...	...	9	8	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	12	5	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	1	...	...	...	...
...	...	...	...	...	...	7	6	8	...	...	...	...	...
...	...	...	...	...	...	3	2	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	...	...	...
...	...	...	...	3	1	6	...	9	1	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	53	4	...	...	...	...	...	...	33	43
12	18	...	...	...	...	1	...	2	1	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	1	2	...	...	...	2	...	...	...	4	1	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	15	1	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	17	54	...	...	...	...
153	149	...	...	6	...	24	...	10	6	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
544	311	211	86	143	36	96	51	139	148	5	3	49	65

APPEN

REGISTER OF DEATHS AC

CLASS III.—LOCAL DISEASES.—(*Concluded*).

ORDER IV.—DISEASES OF THE DIGESTIVE SYSTEM.—(*Concluded*).

Divisions.	Districts.	*Vomiting of blood.*		*Eating mud.*		*Hernia.*		*Intussusception of bowels.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon,	4	...	...	...	...	...	...	...
	Saharunpore,	...	...	...	...	...	...	...	...
	Moozuffernugger,	...	...	...	...	...	...	...	...
	Meerut,	...	...	...	...	...	...	...	...
	Boolundshuhur,	...	...	...	...	...	...	...	...
	Allygurh,	...	...	...	...	...	...	...	...
KUMAON.	Kumaon,	...	...	...	...	...	...	...	...
	Gurhwal,	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour,	...	...	...	...	...	...	...	...
	Moradabad,	...	...	...	...	...	...	...	...
	Budaon,	...	...	...	...	...	...	...	...
	Bareilly,	3	1	...	...	...	...	1	...
	Shahjehanpore,	4	2	...	...	...	...	...	...
	Terrai,	...	...	...	...	...	...	...	...
AGRA.	Muttra,	...	...	...	...	...	...	...	...
	Agra,	...	...	...	...	...	...	...	...
	Furruckabad,	...	...	...	...	...	...	...	...
	Mynpoorie,	...	...	...	...	...	...	...	...
	Etawah,	...	...	...	...	...	...	...	...
	Etah,	1	...	...	...	...	...	...	...
JHANSIE.	Jaloun,	...	...	...	...	...	...	...	...
	Jhansie,	1	...	...	...	...	...	...	...
	Lullutpore,	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore,	...	...	...	...	...	...	190	131
	Futtehpore,	...	...	...	...	...	...	4	2
	Banda,	...	...	...	...	...	...	...	...
	Allahabad,	...	...	...	...	...	...	...	...
	Humeerpore,	...	1	...	...	...	...	...	...
	Jounpore,	...	...	...	...	...	...	...	...
BENARES.	Goruckpore,	...	...	...	...	1	...	...	...
	Bustee,	...	...	...	...	...	...	...	...
	Azimgurh,	...	...	...	...	...	...	...	...
	Mirzapore,	...	...	...	...	...	...	...	...
	Benares,	...	...	...	...	...	...	...	...
	Ghazeepore,	...	...	...	...	...	...	...	...
	Total,	13	4	...	...	1	...	195	133

DIX A.—(*Continued.*)

CORDING TO DISEASES IN 1869.

CLASS III.—LOCAL DISEASES.—(*Continued.*)

ORDER V. DISEASES OF THE URINARY SYSTEM.

Inflammation of the kidneys.		*Stone and Gravel.*		*Inflammation of Bladder.*		*Diabeties.*		*Retention of Urine.*		*Bloody urine.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
93	48	2	...	2	...	...	...	...	...	...	...
40	32	...	...	...	...	...	...	...	...	...	...
11	5	...	...	...	...	...	...	...	...	...	...
1	...	...	...	2	...	...	...	...	...	...	...
...	...	6	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...
10	5	3	...	...	...	...	...	...	...	...	...
18	14	4	1	...	...	...	...	...	...	...	...
8	17	...	...	...	...	...	...	...	...	...	...
11	2	17	...	...	...	1	3	...	...	2	1
1	2	2	...	...	...	1	...	...	...	1	...
...	...	...	4	...	...	...	...	...	...	...	...
...	...	3	...	...	...	...	...	...	...	...	...
6	3	...	...	9	1	...	...	...	...	9	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	3	...	...	...	...	...	...	...	...	...
6	15	...	...	...	...	...	...	12	10	...	...
...	...	93	76	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	3	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	39	29	...	...	...	...	...	...
2	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	65	12	...	...	21	6
4	3	1	1	...	...	...	...	...	...	...	...
...	...	...	...	...	...	7	1	...	...	...	...
...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	22	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
213	146	137	82	52	30	98	16	16	10	35	7

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS III.—LOCAL DISEASES.—(*Continued.*)							
		ORDER VI.—DISEASES OF THE GENERATIVE SYSTEM.				ORDER VII.—DISEASES OF THE LOCOMOTIVE SYSTEM.			
						Necrosis.		*Inflammation of the bones.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	...	...	...	...	...	...	...	...
	Saharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernugger, ...	...	...	...	...	...	...	...	...
	Meerut, ...	...	...	...	...	...	...	...	...
	Boolundshuhur, ...	...	...	...	...	...	...	...	...
	Allygurh, ...	...	...	...	...	...	...	...	...
KUMAON.	Kumaon, ...	...	...	...	...	...	...	...	...
	Gurhwal, ...	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour, ...	...	...	...	...	...	...	...	...
	Moradabad, ...	...	...	...	...	...	...	...	...
	Budaon, ...	...	...	...	...	...	...	...	...
	Bareilly, ...	...	...	...	...	...	...	...	...
	Shahjehanpore, ...	...	...	...	...	6	4	...	...
	Terrai, ...	...	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	...	...	...	...	...	...
	Agra, ...	...	...	...	...	...	...	...	...
	Furruckabad, ...	...	...	...	...	...	...	...	...
	Mynpoorie, ...	...	...	...	...	...	...	...	...
	Etawah, ...	...	...	...	...	...	...	—	...
	Etah, ...	...	...	...	...	...	...	...	...
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	...	...
	Jhansie, ...	...	...	...	...	...	...	...	...
	Lullutpore, ...	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore, ...	...	...	...	...	...	...	...	...
	Futtehpore, ...	...	...	...	...	...	...	...	...
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	...	...	...	...	...	...	...	...
	Jounpore, ...	...	...	...	...	...	...	...	...
BENARES.	Goruckpore, ...	...	...	...	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	...	...	...	...	...	...
	Benares, ...	...	...	...	...	...	...	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	...	...	...	...	6	4	...	...

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

CLASS III.—LOCAL DISEASES—*(Continued.)*

ORDER VIII.—DISEASES OF THE INTEGUMENTARY SYSTEM.

Diseases of the skin (not specified.)		*Abscess.*		*Prurigo.*		*Phlegmon.*		*Ulcer.*		*Ringworm.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
3	...	13	4	...	...	...	...	...	...	...	...
...	2	18	9	10	5	...	...	...	...	18	6
...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	13	5	...	...	...	...	...	...	...	...
3	...	40	41	...	...	...	...	...	...	...	...
...	...	4	1	...	...	2	1	...	...	42	37
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
14	13	52	23	...	...	...	...	...	3	...	...
1	...	...	...	7	5	3	2	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	46	32	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	16	8	...	...
158	149	...	...	...	...	...	...	...	...	...	...
82	60	...	...	...	...	...	...	15	14	...	...
77	35	...	...	...	...	...	...	...	...	...	...
...	...	22	17	...	...	...	...	3	...	...	...
37	21	...	...	...	...	...	...	...	...	...	...
...	...	6	2	...	...	...	...	...	...	2	1
...	...	...	...	...	...	...	...	28	24	...	...
...	...	30	37	...	...	...	...	...	...	...	...
2	...	8	4	...	...	...	...	...	...	...	...
10	8	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	9	4	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	57	28	...	...	...	...	...	...	...	...
...	...	34	66	...	...	...	...	...	...	...	...
389	288	343	269	26	14	5	3	62	50	62	44

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts,	CLASS III.—LOCAL DISEASES.—(*Concluded.*)						CLASS IV.—	
		ORDER VIII.—DISEASES OF THE INTEGUMENTARY SYSTEM.—(*Concluded.*)						ORDER I.—DEVE-	
		Whitlow.		*Nettle-rash.*		*Pemphigus.*		*Premature birth.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
MEERUT.	Dehra Doon, ...	...	...	...	...	...	...	...	...
	Saharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernugger, ...	...	...	...	...	...	...	...	...
	Meerut, ...	...	...	...	...	...	...	...	...
	Boolundshuhur, ...	...	...	...	...	...	...	...	...
	Allygurh, ...	...	...	...	...	...	...	...	...
KUMAON.	Kumaon, ...	3	1	...	...	...	...	...	...
	Gurhwal, ...	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour, ...	...	...	...	...	...	...	...	...
	Moradabad, ...	...	...	...	...	...	...	...	...
	Budaon, ...	...	...	...	...	...	...	...	...
	Bareilly, ...	...	...	...	...	...	...	...	...
	Shahjehanpore, ...	...	...	...	...	...	...	...	...
	Terrai, ...	...	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	...	...	...	...	...	...
	Agra, ...	...	...	...	...	...	...	...	...
	Furruckabad, ...	...	...	...	...	...	...	...	...
	Mynpeorie, ...	...	...	...	...	...	...	...	...
	Etawah, ...	...	...	...	...	...	...	...	...
	Etah, ...	...	...	...	...	...	...	...	...
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	...	...
	Jhansie, ...	...	...	...	...	...	...	...	...
	Lullutpore, ...	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore, ...	...	...	...	...	...	...	...	...
	Futtehpore, ...	...	...	...	...	...	...	...	...
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	...	...	...	...	...	...	...	...
	Joumpore, ...	...	...	...	...	...	...	...	...
BENARES.	Goruckpore, ...	...	...	...	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	...	...	...	...	...	...
	Benares, ...	...	...	...	...	...	...	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	3	1	...	...	...	...	...	...

DIX A.—(*Continued.*)

CORDING TO DISEASES IN 1869.

DEVELOPMENTAL DISEASES.—(*Continued.*)

LOPMENTAL DISEASES OF CHILDREN.		ORDER II.—DEVELOPMENTAL DISEASES OF WOMEN.											
Still-born.		*Teething.*		*Child-birth.*		*Abortion.*		*Menorrhogœa.*		*Miscarriage.*		*Amenorrhœa.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	2	1	...	20	...	...	...	...	...	...	...	...
40	39	2	...	...	62	...	12	...	...	...	...	...	...
...	2	...	...	...	69	...	7	...	...	...	...	...	...
197	10	4	8	...	...	...	...	...	...	...	17	...	125
...	...	104	72	...	24	...	2	...	...	...	16	...	...
81	18	...	...	...	...	...	...	...	...	...	...	...	...
40	33	3	1	...	16	...	...	...	6	...	1	...	...
41	37	...	...	...	...	...	...	...	...	...	...	...	...
2	3	...	...	...	...	...	...	...	29	...	...	...	...
21	24	2	4	...	11	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	13	...	...
78	59	...	...	...	...	...	...	...	1	...	...	...	...
9	14	3	3	...	...	...	...	...	...	...	2	...	...
2	9	...	...	...	1	...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	...	...	28	...	54	...	...
130	123	3	4	...	19	...	...	...	...	...	...	...	...
12	8	23	11	...	9	...	...	...	...	...	14	...	...
15	25	...	...	...	5	...	6	...	...	...	...	...	...
6	8	107	81	...	...	...	...	...	...	...	...	...	...
49	41	...	...	...	15	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	18	...	6	...	...	...	...	...	...
1	3	...	...	...	7	...	...	...	...	...	...	...	...
12	10	2	...	...	56	...	...	...	...	...	...	...	...
2	3	...	1	...	25	...	3	...	...	...	3	...	...
6	10	...	...	...	...	...	...	...	...	...	12	...	...
53	20	72	26	...	66	...	35	...	...	...	...	...	...
3	6	1	...	...	9	...	4	...	...	...	1	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1	...	16	...	...	...	...	...	1	...	...
9	1	...	...	...	1	...	...	...	...	...	...	...	...
15	3	...	...	...	7	...	...	...	...	...	...	...	...
3	46	...	...	...	23	...	...	...	...	...	...	...	...
2	...	2	...	...	5	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	4	...	...
829	560	330	213	...	485	...	80	...	64	...	138	...	125

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS IV.—DEVELOPMENTAL DISEASES.—(*Concluded.*)				CLASS V.—VIOLENT			
		ORDER III.—DEVELOPMENTAL DISEASES OF OLD PEOPLE.		ORDER IV.—DISEASES OF NUTRITION.		ORDER I.—			
		Natural death and old age.		*Atrophy includes debility and premature old age.*		*Drowning.*		*Contusion, crushed by falling walls, roof, &c.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Meerut.	Dehra Doon, ...	...	...	21	5	1	6	9	...
	Saharunpore, ...	16	9	...	...	14	27	...	...
	Moozuffernugger, ...	365	436	5	...	36	30	2	1
	Meerut, ...	...	...	...	...	33	32	14	42
	Boolundshuhur, ...	52	8	32	19	33	30	2	12
	Allygurh, ...	10	13	1	2	47	57	9	8
Kumaon.	Kumaon, ...	182	91	5	2	11	8	7	2
	Gurhwal, ...	122	121	...	...	...	...	...	...
Rohilkhund.	Bijnour, ...	13	8	...	...	35	34	4	...
	Moradabad, ...	18	9	174	223	26	15	...	...
	Budaon, ...	2	1	...	...	112	22	...	...
	Bareilly, ...	171	179	240	157	81	64	2	7
	Shahjehanpore, ...	41	52	407	348	47	33	...	...
	Terrai, ...	...	...	...	...	3	3	2	3
Agra.	Muttra, ...	71	74	...	...	56	58	20	11
	Agra, ...	337	299	269	200	77	72	...	...
	Furruckabad, ...	...	...	...	...	29	9	8	5
	Mynpoorie, ...	...	...	191	181	3	2	...	...
	Etawah, ...	...	...	...	...	44	40	14	6
	Etah, ...	92	44	...	...	22	23	1	3
Jhansie.	Jaloun, ...	65	57	3	1	...	...	...	...
	Jhansie, ...	52	16	284	145	28	73	3	5
	Lullutpore, ...	...	...	78	79	...	1	...	...
Allahabad.	Cawnpore, ...	189	192	139	161	46	46	3	2
	Futtehpore, ...	27	16	46	30	58	72	4	5
	Banda, ...	42	61	...	...	...	...	...	
	Allahabad, ...	126	106	25	39	54	16	55	36
	Humeerpore, ...	8	14	...	...	27	27	7	5
	Joumpore, ...	215	116	...	...	35	34	7	1
Benares.	Goruckpore, ...	163	138	23	15	94	91	8	9
	Bustee, ...	57	46	...	...	13	8	7	1
	Azimgurh, ...	...	...	...	...	54	51	...	...
	Mirzapore, ...	12	37	...	...	20	45	1	1
	Benares, ...	2	4	16	10	49	65	...	...
	Ghazeepore, ...	...	...	...	...	9	8	...	...
	Total, ...	2,450	2,087	1,959	1,617	1,197	1,102	196	165

DIX A.—(*Continued.*)

CORDING TO DISEASES IN 1869.

DEATHS AND DISEASES.—(*Continued.*)

ACCIDENT.

Concussion, fall from trees, &c.		*Privation.*		*Burn or Scald.*		*Sun-stroke.*		*In clearing Wells.*		*Wounds and Contusions.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	...	...	...	5	2	...	...	...	...	7	...
...	...	...	...	1	2	85	40	...	...	...	...
7	...	...	...	4	2	2	3	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...
13	1	1	1	7	...	...	...	...	...	...	...
8	3	2	1	7	2	22	9	...	...	5	1
29	8	8	2	9	2	38	11	...	...	...	...
...	...	3	2	...	...	...	...	...	...	...	...
37	1	22	26	12	22	...	...	...	...	...	...
19	21	142	109	7	5	13	5	...	...	17	4
...	...	391	348	17	27	...	...	...	...	...	...
102	14	374	168	32	42	16	10	...	...	40	2
65	3	97	33	19	16	30	16	6	...	11	1
5	1	...	...	...	...	...	...	...	...	2	1
10	...	...	...	8	2	37	21	...	...	3	1
32	17	30	28	6	9	307	172	8	...	7	...
12	...	...	...	...	...	221	312	6	4	7	...
10	...	...	...	4	5	4	3	...	...	3	...
16	1	16	23	7	2	296	97	...	...	...	...
9	1	...	...	4	7	47	26	...	...	...	...
...	...	76	99	2	...	697	318	...	...	...	...
20	...	129	89	7	2	684	339	2	6	1	...
...	...	126	80	...	...	62	40	...	...	...	...
14	3	4	2	2	3	438	93	...	...	...	...
35	...	...	...	3	5	201	55	7	7	...	...
...	...	11	3	...	...	...	...	...	...	...	...
81	...	...	...	44	28	...	...	...	...	...	...
18	...	269	160	5	3	865	433	15	50	...	...
29	3	...	...	47	24	207	80	...	...	...	...
49	3	...	...	16	6	...	...	...	...	7	1
54	...	...	...	5	6	...	...	...	...	...	...
25	...	4	6	3	2	...	...	...	...	...	...
10	...	4	8	8	14	9	22	...	...	...	...
13	...	...	...	6	11	...	...	15	11	...	...
9	...	...	...	4	2	...	...	...	...	...	...
732	80	1,709	1,188	301	253	4,281	2,105	59	78	111	11

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS V.—VIOLENT ORDER I.— Lightning. Males.	Lightning. Females.	Gun-shot wound. Males.	Gun-shot wound. Females.	Hail-stone. Males.	Hail-stone. Females.	Explosion of powder. Males.	Explosion of powder. Females.
Meerut.	Dehra Doon,	1	...	...	...	...	...	...	...
	Saharunpore,	2	...	...	...	...	...	...	...
	Moozuffernugger,	...	...	...	...	...	...	...	...
	Meerut,	...	...	...	...	...	...	...	...
	Boolundshuhur,	...	1	...	...	...	...	...	...
	Allygurh,	1	...	...	...	...	...	...	...
Kumaon.	Kumaon,	...	...	...	...	1	1	...	...
	Gurhwal,	...	...	...	...	...	...	...	...
Rohilkhund.	Bijnour,	...	...	...	...	...	...	...	...
	Moradabad,	...	...	...	...	...	...	...	...
	Budaon,	...	...	...	...	...	...	...	...
	Bareilly,	3	...	...	...	...	...	...	...
	Shahjehanpore,	2	...	...	...	...	...	1	1
	Terrai,	...	...	...	...	...	...	...	...
Agra.	Muttra,	1	...	1	...	...	...	...	...
	Agra,	...	...	...	...	...	...	...	...
	Furruckabad,	...	...	...	...	...	...	...	...
	Mynpoorie,	...	...	...	...	...	...	...	...
	Etawah,	1	...	...	...	...	...	...	...
	Etah,	2	...	...	...	1	...	...	...
Jhansie.	Jaloun,	...	...	...	...	...	...	...	...
	Jhansie,	...	...	1	...	...	...	...	...
	Lullutpore,	...	...	...	...	...	...	...	...
Allahabad.	Cawnpore,	1	...	...	...	...	...	...	...
	Futtehpore,	...	1	1	...	...	...	...	...
	Banda,	...	...	...	...	...	...	...	...
	Allahabad,	...	...	...	...	...	...	...	...
	Humeerpore,	4	...	1	...	2	...	...	...
	Jounpore,	7	...	...	...	...	...	...	...
Benares.	Gorucknpore,	7	2	...	...	...	...	...	...
	Bustee,	1	...	...	...	...	...	...	...
	Azimgurh,	3	1	...	...	...	...	...	...
	Mirzapore,	1	4	1	...	...	...	...	...
	Benares,	5	...	...	...	...	...	...	...
	Ghazeepore,	...	...	...	...	...	...	...	...
	Total,	42	9	5	...	4	1	1	1

DIX A.—*(Continued).*

CORDING TO DISEASES IN 1869.

DEATHS AND DISEASES.—*(Continued.)*

ACCIDENT.—*(Concluded.)* ORDER II—BATTLE.

Snake-bite.		*Bitten by other Reptiles.*		*Killed by Animals.*		*Hydrophobia.*		*Accidents not specified.*			
Males.	Females.	Males.	Females.	Males.	Females	Males.	Females.	Males.	Females.	Males.	Females.
6	3	...	...	1	...	...	1	...	...	...	...
26	14	3	1	...	1	3	2	63	43	...	...
12	3	...	...	11	...	9	...	72	59	...	...
13	12	...	...	...	...	21	13	...	...	...	...
11	16	...	...	11	1	9	8	25	24	...	...
15	18	...	...	5	3	7	...	34	22	...	...
18	16	9	4	28	5	...	...	16	9	...	...
...	...	...	...	...	...	2	1	84	70	...	...
29	48	...	...	21	19	4	6	...	...	...	...
13	27	...	...	21	17	...	...	...	...	...	...
101	134	...	...	43	41	...	...	416	38	...	...
167	163	...	...	33	22	14	3	99	49	...	...
58	53	5	1	18	4	13	6	17	9	...	...
8	15	...	...	1	2	...	...	...	...	...	...
8	16	...	...	...	...	14	11	...	...	...	...
9	17	...	2	4	3	12	3	...	...	...	...
3	7	...	...	24	22	4	...	...	...	...	...
...	...	...	...	...	...	4	5	73	66	...	...
11	10	...	...	4	...	...	...	...	...	...	...
9	9	...	...	1	...	15	2	...	...	...	...
5	4	...	...	...	...	...	...	28	21	...	...
28	18	2	2	3	1	...	...	25	10	...	...
2	1	1	...	...	...	...	...	...	...	...	...
12	23	2	...	4	1	2	3	...	...	...	...
29	42	3	1	11	7	7	2	92	64	...	...
...	...	...	...	...	...	...	...	1,112	629	...	...
52	34	...	...	...	...	...	...	2	1	...	...
33	27	3	1	12	2	5	...	4	...	...	...
36	24	...	...	...	...	...	...	...	...	...	...
69	71	7	1	14	2	2	1	...	...	...	...
8	13	1	...	1	...	...	...	...	...	...	...
21	18	...	...	3	...	4	1	50	36	...	...
19	31	...	...	18	40	3	2	...	...	...	...
21	20	...	...	...	...	1	2	...	...	...	...
6	4	...	...	...	...	...	...	...	...	...	...
858	911	36	13	292	193	155	72	2,212	1,150	...	...

APPEN

REGISTER OF DEATHS AC

Divisions.	Districts.	CLASS V.—VIOLENT. ORDER III.— Murder. Males.	Murder. Females.	Killed in an affray. Males.	Killed in an affray. Females.	Poisoning. Males.	Poisoning. Females.	By Violence. Males.	By Violence. Females.
Meerut.	Dehra Doon, ...	...	...	2	...	...	...	...	...
	Seharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernugger, ...	...	...	...	...	...	...	...	...
	Meerut, ...	2	...	...	...	...	...	...	...
	Boolundshuhur, ...	1	...	...	...	...	...	...	...
	Allygurh, ...	...	1	1	...	...	...	...	...
Kumaon.	Kumaon, ...	1	2	...	...	...	...	...	...
	Gurhwal, ...	...	...	...	...	...	...	...	...
Rohilkhund.	Bijnour, ...	3	2	...	...	2	2	...	...
	Moradabad, ...	...	...	...	...	1	2	...	...
	Budaon, ...	...	...	...	...	...	...	...	...
	Bareilly, ...	1	...	7	...	2	...	...	...
	Shahjehanpore, ...	3	1	...	...	...	1	...	1
	Terrai, ...	1	...	...	...	...	...	...	...
	Muttra, ...	3	1	...	...	4	1	...	...
Agra.	Agra, ...	4	1	3	...	...	...	2	...
	Furruckabad, ...	...	...	...	...	9	6	...	...
	Mynpoorie, ...	...	...	...	...	...	...	...	...
	Etawah, ...	...	...	3	3	...	...	...	...
	Etah, ...	3	...	3	1	...	...	...	...
Jhansie.	Jaloun, ...	1	1	...	...	...	...	...	...
	Jhansie, ...	...	1	...	1	...	...	...	...
	Lullutpore, ...	...	...	...	...	...	...	...	...
Allahabad.	Cawnpore, ...	7	5	...	...	1	1	...	...
	Futtehpore, ...	1	2	4	...	1	...	3	5
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	4	...	...	...	...	...	...	...
	Jounpore, ...	...	...	...	...	...	...	...	...
Benares.	Goruckpore, ...	...	...	...	...	...	...	...	...
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	5	...	1	...	...	...	...	...
	Benares, ...	4	...	2	...	...	2	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	51	17	31	5	20	15	5	6

DIX A.—*(Continued.)*

CORDING TO DISEASES IN 1869.

DEATHS AND DISEASES—*(Continued.)*

HOMICIDE.—*(Concluded).*										ORDER IV.—SUICIDE.	
Killed by Thieves.		*Killed by Dacoits.*		*Strangled.*		*Killed while stealing.*		*Killed by mad men.*		*Cause not specified.*	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	1	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	10	58
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	2	...
5	1	...	...	...	...	...	...	...	...	9	9
...	...	...	...	8	...	...	...	...	...	8	6
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	4	6
...	...	...	...	1	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	2	6
1	...	1	...	2	...	...	...	...	...	4	1
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
4	1	...	...	...	2	...	...	...	...	2	1
...	...	...	...	...	...	...	...	...	...	4	5
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	3	2
...	...	...	...	3	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	2	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
11	2	1	...	16	2	1	...	...	...	49	97

APPEN

REGISTER OF DEATHS AC

CLASS V.—VIOLENT DEATHS

ORDER IV.—SUICIDE.—(*Concluded.*)

Divisions.	Districts.	*Drowning.*		*Hanging.*		*Burning.*		*Poisoning.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females
MEERUT.	Dehra Doon, ...	...	...	...	...	...	...	...	...
	Seharunpore, ...	...	...	...	...	...	...	...	...
	Moozuffernuggur, ...	...	...	...	...	...	...	...	...
	Meerut, ...	...	...	...	...	...	...	...	...
	Boolundshuhur, ...	...	...	...	...	...	...	...	...
	Allygurh, ...	...	...	...	...	...	...	...	...
KUMAON.	Kumaon, ...	...	...	...	...	...	...	...	...
	Gurhwal, ...	...	...	...	...	...	...	...	...
ROHILKHUND.	Bijnour, ...	...	...	1	...	...	...	...	...
	Moradabad, ...	...	...	...	...	...	...	...	...
	Budaon, ...	...	...	5	...	...	...	...	...
	Bareilly, ...	...	...	1	...	...	...	...	...
	Shahjehanpore, ...	...	...	14	13	...	...	...	...
	Terrai, ...	...	...	...	...	...	...	...	...
AGRA.	Muttra, ...	...	...	1	...	...	...	...	...
	Agra, ...	...	...	...	...	...	...	...	...
	Furruckabad, ...	...	...	...	...	3	2	...	...
	Mynpoorie, ...	...	...	2	...	...	...	...	...
	Etawah, ...	...	...	...	...	...	...	...	...
	Etah, ...	...	...	...	...	...	...	...	...
JHANSIE.	Jaloun, ...	...	...	...	...	...	...	...	...
	Jhansie, ...	...	...	...	...	...	...	...	...
	Lullutpore, ...	...	...	...	...	...	...	...	...
ALLAHABAD.	Cawnpore, ...	...	...	...	...	...	...	...	...
	Futtehpore, ...	...	...	...	...	...	...	...	...
	Banda, ...	...	...	...	...	...	...	...	...
	Allahabad, ...	...	...	...	...	...	...	...	...
	Humeerpore, ...	...	...	...	...	...	...	...	...
	Jounpore, ...	...	1	...	...	...	...	...	...
BENARES.	Goruckpore, ...	...	...	...	...	...	1	5	
	Bustee, ...	...	...	...	...	...	...	...	...
	Azimgurh, ...	...	...	...	...	...	...	...	...
	Mirzapore, ...	...	...	3	10	...	...	...	...
	Benares, ...	...	...	...	...	...	...	...	...
	Ghazeepore, ...	...	...	...	...	...	...	...	...
	Total, ...	...	1	27	23	3	3	5	9

DIX A.—(*Continued.*)

CORDING TO DISEASES IN 1869.

AND DISEASES.—(*Concluded.*)							Total.		
		Order V.—Execution.		Deaths reported without specific cause.					
Incised wounds.		*Hanging.*							
Males.	Females.	Males.	Females.	Males.	Females.		Males.	Females.	Grand Total.
...	...	...	...	...	...		844	506	1,350
...	...	...	...	...	...		10,507	7,792	18,299
...	...	...	...	...	...		9,251	7,839	17,090
...	...	4	...	...	...		10,602	8,619	19,221
...	...	...	...	...	...		8,702	7,373	16,075
...	...	...	...	...	...		9,735	7,231	16,966
...	...	9	2	...	...		3,252	2,736	5,988
...	...	...	...	...	...		2,409	2,104	4,513
...	...	...	...	...	...		3,837	2,628	6,465
...	...	...	...	...	...		6,756	5,113	11,869
...	...	...	...	...	...		5,764	3,733	9,497
...	...	...	...	...	...		16,617	11,858	28,475
...	...	...	...	...	...		8,908	6,787	15,695
...	...	...	...	...	...		1,710	1,300	3,010
...	...	...	...	...	...		10,171	7,906	18,077
...	...	...	...	134	133		16,323	12,204	28,527
...	...	3	...	...	...		7,388	5,597	12,985
...	...	...	...	...	...		6,313	5,998	12,311
7	6	...	...	...	...		6,291	4,268	10,559
...	...	3	...	...	...		5,997	4,219	10,216
...	...	...	...	534	304		5,238	4,114	9,352
...	...	...	...	1,217	396		12,024	8,307	20,331
...	...	...	...	219	247		6,639	5,209	11,848
...	...	...	...	413	370		15,308	11,425	26,733
...	...	5	...	...	...		9,490	7,635	17,125
...	...	...	...	...	...		15,001	11,741	26,742
...	...	...	...	6	9		7,906	6,167	14,073
...	...	2	1	...	...		10,909	7,818	18,727
...	...	4	...	...	...		9,156	5,346	14,502
...	...	...	...	4	12		13,416	8,429	21,845
...	...	...	...	...	...		4,707	3,846	8,553
...	...	...	...	321	53		11,993	7,660	19,653
...	...	...	...	140	178		9,038	6,868	15,906
1	...	4	1	...	...		8,714	6,594	15,308
...	...	...	...	...	...		13,005	8,862	21,867
8	6	31	4	2,988	1,702		3,03,921	2,25,832	5,29,753

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	January.					
		Males.					
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
Meerut.	Dehra Doon, ...	17	5	22	18	3	65
	Seharunpore, ...	203	33	167	166	103	672
	Moozuffernuggur, ...	107	29	94	115	81	426
	Meerut, ...	221	42	115	225	142	745
	Boelundshuhur, ...	393	28	62	61	62	606
	Allygurh, ...	623	49	76	100	72	920
Kumaon.	Kumaon, ...	82	14	46	67	60	269
	Gurhwal, ...	12	24	30	25	33	124
Rohilkhund.	Bijnour, ...	68	14	55	60	43	240
	Moradabad, ...	165	27	86	103	76	457
	Budaon, ...	109	25	65	111	86	396
	Bareilly, ...	213	55	129	181	167	745
	Shahjehanpore, ...	100	25	71	96	72	364
	Turai, ...	34	10	37	29	1	111
Agra.	Muttra, ...	693	36	65	117	91	1,002
	Agra, ...	891	148	105	195	188	1,527
	Furruckabad, ...	54	126	115	160	10	465
	Mynpoorie, ...	255	217	52	34	12	570
	Etawah, ...	133	32	65	72	44	346
	Etah, ...	364	31	58	79	52	584
Jhansie.	Jaloun, ...	89	32	43	41	39	244
	Jhansie, ...	129	18	75	132	62	416
	Lullutpore, ...	35	13	44	68	40	200
Allahabad.	Cawnpore, ...	282	40	115	201	136	774
	Futtehpore, ...	197	30	59	128	77	491
	Banda, ...	465	28	103	145	61	802
	Allahabad, ...	117	267	85	205	80	754
	Humeerpore, ...	518	17	52	88	42	717
	Jounpore, ...	55	47	160	79	33	374
Benares.	Goruckpore, ...	67	45	193	205	104	614
	Bustee, ...	45	38	69	35	42	229
	Azimgurh, ...	50	56	81	107	59	353
	Mirzapore, ...	92	42	130	112	62	438
	Benares, ...	68	43	78	68	24	281
	Ghazeepore, ...	55	57	74	93	102	381
	Total, ...	7,001	1,743	2,876	3,721	2,361	17,702

DIX B.

AND AGE) IN THE NORTH-WESTERN PROVINCES, FOR 1869.

JANUARY.—(Concluded.)							FEBRUARY.					
Females.						Total Males and Females.	Males.					
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
8	1	11	5	5	30	95	22	3	21	25	15	86
174	23	70	84	89	440	1,112	146	29	102	137	64	478
122	40	96	105	59	422	848	69	24	75	124	53	345
107	25	65	121	114	432	1,177	406	28	89	116	109	748
339	31	44	75	96	585	1,191	432	45	45	57	41	625
410	37	69	73	64	653	1,573	615	28	77	65	48	833
67	13	34	38	53	205	474	58	16	44	30	59	207
32	15	36	17	14	114	238	65	5	28	10	34	142
74	3	32	42	51	202	442	57	11	43	42	34	187
146	20	63	59	61	349	806	140	29	52	71	62	354
75	18	36	38	47	214	610	65	17	58	54	46	240
183	35	77	126	100	521	1,266	166	56	107	130	105	558
81	24	31	72	63	271	635	91	28	63	108	78	368
30	8	27	16	5	86	192	21	13	33	14	6	87
593	27	60	95	74	849	1,851	620	36	59	82	57	854
780	93	81	142	136	1,232	2,759	699	108	122	139	98	1,166
66	151	64	70	3	354	819	52	133	125	40	8	358
265	252	27	32	9	585	1,155	192	195	72	73	9	541
112	32	50	56	20	270	616	94	34	54	48	36	266
220	34	35	41	33	363	947	301	27	29	43	41	441
87	20	26	35	21	189	433	51	28	29	42	40	190
108	13	29	78	35	263	679	248	67	94	137	70	616
34	9	25	37	14	119	319	44	15	47	103	18	227
220	35	84	140	92	571	1,345	349	52	83	170	102	756
148	21	59	99	69	396	887	302	28	68	93	40	531
408	21	60	118	55	662	1,464	733	34	93	127	61	1,048
73	110	246	76	54	559	1,313	60	96	49	186	108	499
432	11	29	52	28	552	1,269	596	22	40	97	38	793
26	68	30	15	55	194	568	47	49	64	80	40	280
35	28	96	79	50	288	902	36	37	122	119	91	405
53	27	71	30	32	213	442	33	26	46	38	33	176
40	38	85	41	83	287	640	51	70	71	99	55	346
82	21	51	56	46	256	694	94	52	78	89	29	342
57	28	38	53	21	197	478	70	26	56	43	36	231
52	63	91	40	64	310	691	50	67	83	83	100	383
5,739	1,395	2,028	2,256	1,815	13,233	30,935	7,080	1,528	2,331	2,914	1,854	15,707

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

FEBRUARY.—(*Concluded.*)

Divisions.	Districts.	Females.						Total Males and Females.
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
Meerut.	Dehra Doon, ...	12	2	7	9	5	35	121
	Saharunpore, ...	117	12	49	45	42	265	743
	Moozuffernuggur, ...	56	22	43	60	45	226	571
	Meerut, ...	215	21	77	73	95	481	1,229
	Boolundshuhur, ...	339	51	44	36	40	510	1,135
	Allygurh, ...	416	27	54	59	31	587	1,420
Kumaon.	Kumaon, ...	57	13	16	28	53	167	374
	Gurhwal, ...	36	9	16	32	42	135	277
Rohilkhund.	Bijnour, ...	43	8	24	18	22	115	302
	Moradabad, ...	107	24	49	40	49	269	623
	Budaon, ...	46	6	25	27	52	156	396
	Bareilly, ...	119	25	63	50	79	336	894
	Shahjehanpore, ...	73	20	41	43	53	235	603
	Terai, ...	30	4	13	12	5	64	151
Agra.	Muttra, ...	501	34	37	51	52	675	1,529
	Agra, ...	674	38	68	100	93	1,023	2,189
	Furrackabad, ...	75	52	68	70	10	275	633
	Mynpoorie, ...	195	154	71	23	7	450	991
	Etawah, ...	103	25	22	23	16	189	455
	Etah, ...	200	23	18	29	25	295	736
Jhansie.	Jaloun, ...	83	78	22	29	22	234	424
	Jhansie, ...	217	4	20	50	35	326	942
	Lullutpore, ...	35	7	38	45	9	134	361
Allahabad.	Cawnpore, ...	273	43	76	108	89	589	1,345
	Futtehpore, ...	230	26	39	65	32	392	923
	Banda, ...	609	20	51	73	48	801	1,849
	Allahabad, ...	81	53	22	66	16	238	737
	Humeerpore, ...	431	16	20	42	25	534	1,327
	Jounpore, ...	45	59	52	44	50	250	530
Benares.	Goruckpore, ...	20	12	55	44	46	177	582
	Bustee, ...	24	22	34	33	35	148	324
	Azimgurh, ...	38	47	37	51	55	228	574
	Mirzapore, ...	85	38	49	47	37	256	598
	Benares, ...	50	19	43	24	21	157	388
	Ghazepore, ...	34	55	69	46	110	314	697
	Total, ...	5,669	1,119	1,432	1,600	1,446	11,266	26,973

DIX B.—(*Continued.*)

AND AGE) IN THE NORTH-WESTERN PROVINCES, FOR 1869.

March.												
Males.						*Females.*						Total Males and Females.
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
17	4	11	16	7	55	18	1	6	5	4	34	89
164	27	106	154	80	531	122	19	67	76	52	336	867
163	34	93	61	43	394	114	71	73	80	46	384	778
392	36	106	199	234	967	253	137	97	117	87	691	1,658
498	34	43	62	60	697	468	26	39	43	39	615	1,312
824	48	75	92	48	1,087	565	53	48	59	36	761	1,848
60	15	38	30	30	173	41	8	24	19	35	127	300
68	13	21	31	31	164	63	14	23	16	37	153	317
88	21	34	65	36	244	68	10	30	34	24	166	410
199	33	93	91	80	496	146	24	62	51	42	330	826
65	19	50	59	63	256	57	14	28	31	36	166	422
268	85	175	201	141	870	194	57	127	95	116	589	1,459
172	28	67	119	70	456	115	34	45	73	63	330	786
24	10	30	15	6	85	16	7	14	3	2	42	127
642	32	52	64	28	818	513	27	43	56	39	678	1,496
864	97	79	155	97	1,285	625	117	71	94	87	994	2,279
190	125	215	72	22	624	190	95	191	98	12	586	1,210
312	195	92	72	22	693	332	202	87	77	21	719	1,412
242	25	42	86	26	415	162	16	23	47	20	268	683
401	37	24	38	36	536	319	20	30	23	23	415	951
159	28	31	37	30	285	108	26	19	31	25	209	494
491	48	77	86	52	754	445	26	34	57	35	597	1,351
60	18	49	51	17	195	52	10	19	45	16	142	337
685	65	95	194	112	1,151	521	52	88	125	96	892	2,043
635	35	89	102	53	914	609	33	54	72	65	833	1,747
1,119	35	67	106	44	1,371	987	24	42	84	35	1,172	2,543
62	114	72	105	250	603	24	79	53	16	48	220	823
635	34	39	70	38	816	507	15	33	51	17	623	1,439
199	110	150	100	50	609	52	107	74	87	60	380	989
100	63	204	188	111	666	39	33	92	73	68	305	971
31	49	88	68	30	266	66	39	55	83	59	302	568
90	67	75	67	77	376	53	45	58	68	45	269	645
212	76	174	134	49	645	193	53	93	74	43	456	1,101
153	75	116	82	39	465	128	31	82	53	23	317	782
81	62	71	99	145	458	56	53	95	102	81	387	845
10,365	1,797	2,836	3,165	2,257	20,420	8,221	1,588	2,019	2,118	1,542	15,488	35,908

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	April.					
		Males.					
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
Meerut.	Dehra Doon, ...	13	5	8	16	5	47
	Scharunpore, ...	229	29	122	117	87	584
	Moozuffernugger, ...	247	53	105	227	113	745
	Meerut, ...	438	45	124	140	119	866
	Boolundshuhur, ...	893	28	64	60	50	1,095
	Aligurh, ...	794	33	68	92	49	1,036
Kumaon.	Kumaon, ...	58	16	40	32	34	180
	Gurhwal, ...	116	11	34	36	23	220
Rohilkhund.	Bijnour, ...	142	24	71	75	39	351
	Moradabad, ...	347	44	94	98	86	669
	Budaon, ...	127	23	56	81	53	340
	Bareilly, ...	489	87	159	177	150	1,062
	Shahjehanpore, ...	330	28	78	111	81	628
	Terai, ...	40	13	33	20	9	115
Agra.	Muttra, ...	759	38	53	76	63	989
	Agra, ...	1,084	134	167	171	118	1,674
	Furruckabad, ...	285	215	195	122	15	832
	Mynpoorie, ...	301	172	77	52	11	613
	Etawah, ...	671	117	85	156	55	1,084
	Etah, ...	552	45	46	39	45	727
Jhansie.	Jaloun, ...	171	24	30	49	24	298
	Jhansie, ...	512	44	55	75	36	722
	Lullutpore, ...	155	24	37	59	17	292
Allahabad.	Cawnpore, ...	1,043	74	100	186	112	1,465
	Futtehpore, ...	985	81	67	114	61	1,308
	Banda, ...	985	90	158	147	62	1,442
	Allahabad, ...	48	53	101	12	51	265
	Humeerpore, ...	428	23	51	64	34	600
	Jounpore, ...	297	395	252	196	120	1,260
Benares.	Goruckpore, ...	273	126	320	223	93	1,035
	Bustee, ...	106	96	261	127	79	669
	Azimgurh, ...	177	104	172	94	92	639
	Mirzapore, ...	357	87	215	121	53	833
	Benares, ...	251	87	128	83	38	587
	Ghazeepore, ...	93	85	99	165	157	599
	Total, ...	13,796	2,553	3,725	3,563	2,234	25,871

DIX B.—(*Continued.*)

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

April.—(*Concluded.*)							May.					
Females.						Total Males and Females.	*Males.*					
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
6	1	14	13	2	36	85	31	4	26	18	9	88
154	22	85	77	81	419	1,003	640	36	114	132	86	1,008
186	62	59	71	47	425	1,170	553	159	171	170	105	1,158
322	128	104	90	111	755	1,621	781	154	167	241	200	1,563
703	26	72	48	45	894	1,989	1,018	30	44	60	77	1,229
539	87	69	52	55	802	1,838	805	59	94	104	61	1,123
58	18	31	23	31	161	341	131	30	73	51	44	329
95	11	27	26	28	187	407	127	8	31	38	26	230
86	14	37	43	35	245	566	280	42	79	67	46	514
277	39	63	48	66	493	1,162	461	58	77	93	61	750
84	25	31	45	42	227	567	160	15	49	67	73	364
338	57	93	87	121	696	1,758	693	121	196	201	162	1,373
261	44	71	65	77	518	1,146	554	38	81	105	118	896
33	9	14	19	6	81	196	57	10	25	32	6	130
713	29	75	41	66	924	1,913	664	39	70	94	78	945
307	122	85	132	81	1,227	2,901	898	169	146	204	139	1,556
125	91	176	76	8	476	1,308	295	226	296	165	5	987
362	152	62	65	10	651	1,264	355	202	91	75	21	744
419	81	65	56	34	655	1,739	535	58	72	113	51	829
363	64	38	24	18	507	1,234	529	21	68	54	35	707
106	9	19	20	21	175	473	139	66	56	80	74	415
392	26	49	53	33	553	1,275	350	29	85	95	34	593
126	15	20	48	11	220	512	207	42	38	62	8	357
757	57	123	111	85	1,133	2,598	1,162	139	149	193	128	1,771
827	64	61	97	58	1,107	2,415	889	89	91	79	78	1,226
891	60	92	95	35	1,173	2,615	606	70	107	167	59	1,009
104	126	85	120	116	551	816	114	87	254	36	283	771
344	13	24	44	31	456	1,056	199	22	55	112	42	430
203	98	193	85	23	602	1,862	159	397	26	231	220	1,033
164	68	190	134	86	642	1,677	274	178	342	186	93	1,073
137	100	212	108	96	653	1,322	99	97	186	71	69	522
91	85	83	69	66	394	1,033	173	191	230	198	184	976
253	68	122	83	33	559	1,392	448	126	281	126	80	1,061
183	71	93	55	53	455	1,042	350	160	235	155	54	954
78	97	55	66	143	439	1,036	286	197	124	308	160	1,075
10,587	2,039	2,692	2,289	1,854	19,461	45,332	15,019	3,369	4,249	4,183	2,969	29,789

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	MAY.—(*Concluded.*						
		Females.						Total Males and Females.
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
MEERUT.	Dehra Doon, ...	23	1	6	3	5	38	126
	Seharunpore, ...	382	25	103	80	57	647	1,655
	Moozuffernuggur, ...	393	120	130	114	107	864	2,022
	Meerut, ...	527	81	50	164	185	1,007	2,570
	Boolundshuhur, ...	896	30	53	51	66	1,096	2,325
	Allygurh, ...	538	50	72	65	46	771	1,894
KUMAON.	Kumaon, ...	149	20	47	57	34	307	636
	Gurhwal, ...	88	14	30	17	27	176	406
ROHILKHUND.	Bijnour, ...	180	17	46	53	37	333	847
	Moradabad, ...	347	48	75	55	61	586	1,936
	Budaon, ...	103	20	48	42	45	258	622
	Bareilly, ...	498	94	109	124	129	954	2,327
	Shahjehanpore, ...	441	50	93	59	87	730	1,626
	Terai, ...	49	11	11	12	4	87	217
AGRA.	Muttra, ...	481	52	73	90	73	769	1,714
	Agra, ...	592	181	117	159	110	1,159	2,715
	Furruckabad, ...	195	195	296	84	20	790	1,777
	Mynpoorie, ...	325	195	95	79	29	723	1,467
	Etawah, ...	379	54	59	67	38	597	1,426
	Etah, ...	365	28	43	40	33	509	1,216
JHANSIE.	Jaloun, ...	107	55	39	49	39	289	704
	Jhansie, ...	271	19	55	63	59	467	1,060
	Lullutpore, ...	152	37	20	44	7	260	617
ALLAHABAD.	Cawnpore, ...	825	84	127	130	95	1,261	3,032
	Futtehpore, ...	700	44	77	85	64	970	2,196
	Banda, ...	421	49	87	133	98	788	1,797
	Allahabad, ...	95	147	108	119	141	610	1,381
	Humeerpore, ...	114	14	41	75	45	289	719
	Jounpore, ...	109	175	187	25	4	500	1,533
BENARES.	Goruckpore, ...	180	84	218	118	72	672	1,745
	Bustee, ...	105	69	159	74	82	489	1,011
	Azimgurh, ...	98	84	97	93	125	497	1,473
	Mirzapore, ...	313	94	183	107	52	749	1,810
	Benares, ...	298	99	176	103	66	742	1,696
	Ghazeepore, ...	70	112	253	31	191	657	1,732
	Total, ...	10,809	2,452	3,383	2,664	2,333	21,641	51,430

DIX B.—*(Continued.)*

AND AGES) IN N.-W. PROVINCES, FOR THE YEAR 1869.

JUNE.

Males.						*Females.*						Total Males and Females.
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
41	1	13	14	7	76	20	8	8	6	6	48	124
452	33	87	117	65	754	265	39	56	64	46	470	1,224
498	52	133	107	69	859	385	86	88	81	60	700	1,559
617	47	109	125	142	1,040	383	98	51	105	227	864	1,904
738	35	57	78	68	976	601	26	64	40	66	797	1,773
391	47	72	92	51	653	266	71	106	65	65	573	1,226
214	38	83	67	44	446	215	24	56	43	27	365	811
191	26	33	31	26	307	178	23	26	25	46	298	605
170	21	46	56	36	329	111	18	31	28	29	217	546
246	40	72	78	58	494	159	29	49	43	53	333	827
122	25	58	58	56	319	63	20	48	31	37	199	518
549	102	145	143	123	1,062	340	80	90	93	78	681	1,743
355	46	87	99	75	662	303	38	78	45	59	523	1,185
31	2	19	17	2	71	21	7	16	6	...	50	121
610	51	86	124	121	992	270	49	88	155	68	630	1,622
579	178	243	279	156	1,435	403	118	193	160	163	1,037	2,472
200	190	194	83	22	689	97	104	206	184	8	599	1,288
277	82	72	73	9	513	195	145	81	23	8	452	965
232	52	102	147	65	598	156	43	53	33	68	353	951
260	22	38	59	33	412	183	29	56	28	34	330	742
91	51	334	416	212	1,104	11	329	157	193	225	915	2,019
317	63	320	408	187	1,295	178	34	147	214	117	690	1,985
318	176	262	149	93	998	254	144	192	139	85	814	1,812
603	129	295	404	210	1,641	477	91	159	169	136	1,032	2,673
511	107	200	236	146	1,200	364	67	161	136	71	799	1,999
319	116	452	490	151	1,528	211	80	182	209	82	764	2,292
58	43	127	86	91	405	163	197	78	85	113	636	1,041
158	70	316	414	179	1,137	103	37	114	180	109	543	1,680
405	15	421	139	30	1,010	99	35	52	204	14	404	1,414
389	223	461	305	108	1,486	266	145	335	183	81	1,010	2,496
261	288	249	154	85	1,037	139	121	257	88	56	661	1,698
289	247	294	194	241	1,265	254	95	186	94	83	712	1,977
291	199	291	175	58	1,014	270	125	178	95	43	711	1,725
365	189	241	132	52	979	270	104	175	82	42	673	1,652
192	246	170	389	238	1,235	131	92	167	179	260	829	2,064
11,340	3,252	6,182	5,938	3,309	30,021	7,804	2,751	3,984	3,508	2,665	20,712	50,733

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	July. Males. Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
Meerut.	Dehra Doon, ...	20	7	15	14	8	64
	Seharumpore, ...	175	38	74	73	43	403
	Moozuffernuggur, ...	156	56	70	62	43	387
	Meerut, ...	248	62	48	111	112	581
	Boolundshuhur, ...	345	39	56	59	56	555
	Allygurh, ...	236	31	67	89	162	585
Kumaon.	Kumaon, ...	173	24	80	62	60	399
	Gurhwal, ...	150	19	23	33	18	243
Rohilkund.	Bijnour, ...	82	24	70	51	39	266
	Moradabad, ...	180	39	66	77	57	419
	Budaon, ...	77	12	59	54	45	247
	Bareilly, ...	385	99	154	155	126	919
	Shahjehanpore, ...	223	46	71	105	59	504
	Terai, ...	31	6	20	15	6	78
Agra.	Muttra, ...	290	83	98	137	86	694
	Agra, ...	417	211	265	189	160	1,242
	Furruckabad, ...	96	185	93	84	8	466
	Mynpoorie, ...	132	95	54	44	9	334
	Etawah, ...	93	30	61	66	30	280
	Etah, ...	177	36	56	60	37	366
Jhansie.	Jaloun, ...	50	57	165	143	82	497
	Jhansie, ...	148	69	241	208	103	769
	Lullutpore, ...	133	165	248	138	88	772
Allahabad.	Cawnpore, ...	315	71	149	183	109	827
	Futtehpore, ...	155	37	102	119	62	475
	Banda, ...	190	64	188	197	56	695
	Allahabad, ...	214	186	241	107	215	963
	Humeerpore, ...	204	102	240	277	89	912
	Jounpore, ...	155	402	195	187	53	992
Benares.	Goruckpore, ...	559	312	668	366	156	2,056
	Bustee, ...	210	143	220	109	73	755
	Azimgurh, ...	475	322	354	299	284	1,734
	Mirzapore, ...	329	139	281	181	70	1,000
	Benares, ...	357	153	196	140	77	923
	Ghazeepore, ...	299	285	366	504	377	1,831
	Total, ...	7,479	3,649	5,349	4,698	3,058	24,233

DIX B.—(*Continued.*)

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

JULY.—(*Concluded.*)							AUGUST.					
Females.							*Males.*					
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Total Males and Females.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
29	5	13	10	3	60	124	29	5	27	14	6	81
135	34	64	44	53	330	733	297	30	92	81	91	591
184	42	67	48	52	393	780	307	35	61	84	68	555
160	23	80	66	85	414	995	337	37	96	82	71	623
286	32	56	29	45	448	1,003	312	21	49	66	69	517
155	41	66	59	44	365	950	374	64	103	95	102	738
135	37	63	58	37	330	729	142	42	94	66	40	384
157	31	37	38	19	282	525	173	16	37	30	27	283
58	17	34	32	29	170	436	95	28	62	70	51	306
171	33	55	40	45	344	763	260	32	81	94	75	542
44	19	40	29	25	157	404	145	40	103	139	92	519
266	81	109	90	70	616	1,535	632	152	296	321	241	1,642
179	46	61	63	57	406	910	409	35	82	139	114	779
23	2	10	4	2	41	119	29	4	19	18	9	79
204	59	93	82	53	491	1,185	334	68	110	168	125	805
322	173	167	123	84	869	2,111	621	184	290	247	205	1,547
81	103	51	55	10	300	766	190	116	180	145	24	655
122	92	65	11	5	295	629	145	87	65	47	7	351
76	29	34	35	30	204	484	180	62	51	75	50	418
113	28	45	27	18	231	597	237	22	51	67	52	429
15	45	72	72	71	275	772	190	13	234	202	121	760
96	34	92	110	72	404	1,173	416	166	479	604	185	1,850
410	125	172	104	75	586	1,358	227	182	113	194	116	822
193	57	117	92	82	541	1,368	549	213	373	369	215	1,719
152	37	90	74	48	401	876	150	47	97	135	67	496
133	36	112	142	49	472	1,167	305	72	206	274	118	975
25	128	26	146	51	376	1,339	309	258	278	456	431	1,732
176	39	163	142	69	589	1,501	367	125	330	351	144	1,317
45	59	99	185	14	402	1,394	125	7	102	499	470	1,203
344	182	475	256	140	1,397	3,453	456	288	625	448	177	1,994
165	88	186	82	75	596	1,351	63	47	119	72	58	359
354	217	301	126	291	1,289	3,023	857	390	609	353	301	2,510
272	93	228	143	62	798	1,798	408	133	238	220	82	1,081
327	129	203	117	52	828	1,751	639	219	384	261	118	1,621
153	262	285	387	298	1,385	3,216	539	643	662	857	948	3,649
5,460	2,458	3,831	3,121	2,215	17,085	41,318	10,838	3,883	6,798	7,343	5,070	33,932

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	August.—(*Concluded*).						
		Females.						Total Males and Females.
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
Meerut.	Dehra Doon, ...	13	4	10	7	6	40	121
	Seharunpore, ...	191	37	74	44	65	411	1,002
	Moozuffernuggur, ...	251	78	70	61	48	508	1,063
	Meerut, ...	239	45	116	75	93	562	1,185
	Boolundshuhur, ...	282	25	60	20	46	433	950
	Allygurh, ...	273	57	93	84	75	582	1,320
Kumaon.	Kumaon, ...	153	34	61	48	29	325	709
	Gurhwal, ...	150	23	35	25	27	260	543
Rohilkund.	Bijnour, ...	63	18	33	32	37	183	489
	Moradabad, ...	203	38	69	78	64	452	994
	Budaon, ...	82	42	68	53	63	308	827
	Bareilly, ...	516	124	155	152	155	1,102	2,744
	Shahjehanpore, ...	355	56	77	71	83	642	1,421
	Terai, ...	21	2	11	4	5	43	122
Agra.	Muttra, ...	265	57	116	85	77	600	1,405
	Agra, ...	403	148	192	162	149	1,054	2,601
	Furruckabad, ...	105	96	183	94	21	499	1,154
	Mynpoorie, ...	135	75	67	25	8	310	661
	Etawah, ...	98	25	40	39	40	242	660
	Etah, ...	139	27	49	33	36	284	713
Jhansie.	Jaloun, ...	...	280	83	267	125	755	1,515
	Jhansie, ...	307	73	302	337	190	1,209	3,059
	Lullutpore, ...	134	114	152	150	119	666	1,488
Allahabad.	Cawnpore, ...	375	174	346	267	167	1,329	3,048
	Futtehpore, ...	102	32	89	90	58	371	867
	Banda, ...	234	42	143	213	113	745	1,720
	Allahabad, ...	286	468	357	209	269	1,589	3,321
	Humeerpore, ...	223	80	185	243	157	888	2,205
	Joumpore, ...	85	109	256	125	65	640	1,843
Benares.	Goruckpore, ...	311	174	451	313	152	1,401	3,395
	Bustee, ...	61	40	77	33	20	231	590
	Azimgarh, ...	517	282	360	260	235	1,654	4,164
	Mirzapore, ...	336	96	194	164	78	868	1,949
	Benares, ...	472	216	286	182	93	1,249	2,870
	Ghazeepore, ...	364	452	479	423	397	2,115	5,764
	Total, ...	7,735	3,643	5,339	4,468	3,365	24,550	58,482

DIX B.—(*Continued.*)

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

SEPTEMBER.

Males.						*Females.*						Total Males and Females.
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
17	8	19	11	9	64	11	11	14	11	7	54	118
342	74	111	161	141	829	331	64	88	107	149	739	1,568
259	105	94	118	83	659	355	105	90	100	84	734	1,393
393	63	245	45	121	867	226	70	166	110	150	722	1,589
362	28	73	89	70	622	311	38	72	50	61	532	1,154
401	70	103	91	111	776	282	53	94	83	82	594	1,370
99	19	61	41	31	251	90	24	47	40	33	234	485
99	11	51	35	19	215	57	16	24	21	21	139	354
99	26	63	84	61	333	93	19	39	47	43	241	574
169	38	76	97	64	444	158	39	54	31	61	343	787
227	95	198	185	139	844	193	76	110	113	94	586	1,430
661	268	339	356	274	1,898	474	184	190	187	194	1,229	3,127
377	42	151	203	153	926	330	48	102	91	92	663	1,589
42	4	30	11	7	94	27	7	14	11	9	68	162
334	62	103	142	176	817	248	42	98	87	117	592	1,409
656	102	123	169	161	1,211	492	135	116	103	116	962	2,173
176	191	97	104	7	575	97	131	125	32	10	395	970
235	89	67	78	9	478	197	147	79	25	6	454	932
177	28	69	138	66	478	90	38	45	60	53	286	764
183	46	68	62	64	423	107	29	50	44	44	274	697
78	10	122	182	88	480	42	109	89	102	58	400	880
252	137	411	502	158	1,460	71	62	146	276	135	690	2,150
227	190	214	202	88	921	172	106	204	132	64	678	1,599
402	169	260	309	187	1,327	283	108	241	217	138	987	2,314
150	39	85	129	110	513	125	36	93	76	79	409	922
380	68	197	340	169	1,154	331	51	156	268	146	952	2,106
130	71	207	54	41	503	39	54	113	57	61	324	827
326	71	217	356	105	1,075	270	43	139	232	129	813	1,888
17	182	723	40	143	1,105	97	85	199	40	10	401	1,506
283	130	445	327	131	1,316	176	111	268	137	94	786	2,102
44	38	81	86	51	300	35	27	54	56	46	218	518
316	241	290	203	288	1,338	244	185	185	128	181	923	2,261
341	130	235	250	93	1,049	334	106	205	175	104	924	1,973
409	183	201	229	106	1,128	296	67	159	132	73	727	1,855
262	265	373	289	397	1,586	162	173	150	298	204	987	2,573
8,925	3,293	6,202	5,718	3,921	28,059	6,846	2,599	4,018	3,649	2,948	20,060	48,119

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	October.					
		Males.					
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
Meerut.	Dehra Doon, ...	20	9	35	18	9	91
	Seharunpore, ...	621	134	272	365	261	1,653
	Moozuffernuggur, ...	814	119	202	256	224	1,615
	Meerut, ...	163	67	166	201	247	844
	Boolundshuhur, ...	349	31	90	109	97	676
	Allygurh, ...	324	69	128	148	154	823
Kumaon.	Kumaon, ...	81	21	53	52	30	237
	Gurhwal, ...	81	...	38	44	32	195
Rohilkhund.	Bijnour, ...	104	26	97	108	91	426
	Moradabad, ...	366	50	143	147	132	838
	Budaon, ...	433	125	282	277	185	1,302
	Bareilly, ...	1,067	325	503	541	403	2,839
	Shahjehanpore, ...	579	79	210	354	233	1,455
	Terai, ...	134	39	70	44	12	299
Agra.	Muttra, ...	442	58	113	166	224	1,003
	Agra, ...	684	136	165	272	304	1,561
	Furruckabad, ...	211	276	223	194	34	938
	Mynpoorie, ...	252	215	55	36	11	569
	Etawah, ...	255	90	113	199	121	778
	Etah, ...	272	45	85	82	140	624
Jhansie.	Jaloun, ...	53	52	86	106	91	388
	Jhansie, ...	359	124	391	487	165	1,526
	Lullutpore, ...	148	114	227	187	188	864
Allahabad.	Cawnpore, ...	522	143	288	481	285	1,719
	Futtehpore, ...	203	57	156	233	148	797
	Banda, ...	434	157	328	641	264	1,824
	Allahabad, ...	27	67	53	56	15	218
	Humeerpore, ...	313	98	238	301	149	1,099
	Jounpore, ...	122	27	109	302	230	790
Benares.	Goruckpore, ...	158	114	406	317	141	1,136
	Bustee, ...	31	31	67	49	27	205
	Azimgurh, ...	245	265	252	161	198	1,121
	Mirzapore, ...	198	81	136	143	84	642
	Benares, ...	169	87	160	174	85	675
	Ghazeepore, ...	179	167	184	153	142	825
	Total, ...	10,413	3,498	6,124	7,404	5,156	32,595

DIX B.—(*Continued.*)

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

OCTOBER.—(*Concluded*)							NOVEMBER.					
Females.							*Males.*					
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Total Males and Females.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
13	10	16	13	6	58	149	15	7	19	18	10	69
643	115	213	218	242	1,431	3,084	649	146	259	375	320	1,749
571	109	182	203	181	1,246	2,861	468	77	176	291	195	1,207
743	126	81	125	164	1,239	2,083	301	64	167	168	200	900
265	23	72	34	71	465	1,141	249	37	105	101	129	621
201	43	107	95	113	559	1,382	224	54	113	134	149	674
64	24	48	35	32	203	440	50	10	54	40	36	190
52	...	33	14	3	102	297	53	26	27	37	20	163
105	26	62	66	69	328	754	75	34	78	121	74	382
314	30	91	83	96	614	1,452	334	56	119	179	134	821
283	80	153	147	138	801	2,103	135	55	120	152	137	599
837	272	358	336	421	2,224	5,063	911	286	433	524	392	2,546
513	67	113	144	149	986	2,441	477	70	197	302	213	1,259
148	27	46	42	10	273	572	184	27	58	58	15	342
306	55	108	85	226	780	1,783	229	49	104	159	224	765
463	160	155	213	199	1,190	2,751	462	193	187	320	247	1,409
201	300	102	77	23	703	1,641	207	102	105	75	14	503
255	245	28	35	5	568	1,137	95	185	95	47	32	454
166	34	109	181	77	567	1,345	125	53	82	142	97	499
144	56	74	75	70	419	1,043	177	50	79	97	113	516
31	30	57	71	68	257	645	42	58	98	119	55	372
254	153	250	340	177	1,174	2,700	371	85	317	511	185	1,469
140	105	167	182	152	746	1,610	161	98	155	130	140	684
361	74	255	383	240	1,313	3,032	342	79	192	453	262	1,328
170	48	163	165	147	693	1,490	184	57	143	284	219	885
382	91	252	573	288	1,586	3,410	398	117	393	799	289	1,996
91	125	107	182	15	520	738	106	53	128	200	24	511
262	47	186	298	173	966	2,065	281	111	215	385	165	1,157
125	17	79	185	1	407	1,197	324	46	4	6	...	380
125	70	213	168	99	675	1,811	84	85	279	328	159	935
34	26	55	41	16	172	377	10	6	28	29	20	93
97	89	91	197	186	660	1,781	162	135	189	199	117	802
182	60	102	135	84	563	1,205	157	50	127	150	93	577
177	74	139	109	88	587	1,262	86	45	119	119	91	460
93	152	146	155	141	687	1,512	71	79	164	133	137	584
8,811	2,963	4,413	5,405	4,170	25,762	58,357	8,198	2,685	5,126	7,185	4,707	27,901

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	November—(*Concluded.*)						
		Females.						Total Males and Females.
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
Meerut.	Debra Doon, ...	8	2	14	7	8	39	108
	Seharumpore, ...	459	131	297	219	281	1,387	3,136
	Meozuffernuggur, ...	490	117	193	215	169	1,094	2,301
	Meerut, ...	209	88	123	140	196	756	1,656
	Boolundshuhur, ...	237	42	101	107	122	609	1,230
	Allygurh, ...	138	67	81	117	149	552	1,226
Kumaon.	Kumaon, ...	49	15	30	31	28	153	343
	Gurhwal, ...	57	29	29	26	9	150	313
Rohilkhund.	Bijnour, ...	69	15	38	56	91	269	651
	Moradabad, ...	287	49	112	100	135	683	1,504
	Budaon, ...	98	49	89	98	107	441	1,040
	Bareilly, ...	736	234	307	364	402	2,043	4,589
	Shahjehanpore, ...	440	63	110	191	211	1,015	2,274
	Terai, ...	161	26	44	46	16	293	635
Agra.	Muttra, ...	180	48	87	75	164	554	1,319
	Agra, ...	291	133	135	144	182	885	2,294
	Furruckabad, ...	103	101	97	108	9	418	921
	Mynpoorie, ...	142	99	95	61	15	412	866
	Etawah, ...	111	30	80	116	83	420	919
	Etah, ...	146	39	71	67	73	396	912
Jhansie.	Jaloun, ...	43	32	65	72	78	290	662
	Jhansie, ...	327	113	222	374	211	1,247	2,716
	Lullutpore, ...	140	90	157	107	131	625	1,309
Allahabad.	Cawnpore, ...	271	77	203	350	239	1,140	2,468
	Futtehpore, ...	125	34	142	255	189	745	1,630
	Banda, ...	407	67	312	650	267	1,703	3,699
	Allahabad, ...	16	65	94	57	59	291	802
	Humeerpore, ...	258	35	186	325	153	957	2,114
	Jounpore, ...	124	51	2	2	366	545	925
Benares.	Goruckpore, ...	65	40	195	169	136	605	1,540
	Bustee, ...	7	5	29	12	15	68	161
	Azimgurh, ...	79	78	95	97	96	445	1,247
	Mirzapore, ...	129	40	101	121	78	469	1,046
	Benares, ...	83	24	69	84	43	303	763
	Ghazeepore, ...	68	69	77	71	102	387	971
	Total, ...	6,463	2,197	4,082	5,034	4,613	22,389	50,290

DIX B.—*(Continued.)*

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

DECEMBER.

Males.						*Females.*						Total Males and Females.
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
12	5	16	19	6	58	6	2	17	8	1	34	92
391	64	246	363	191	1,255	237	61	158	240	221	917	2,172
242	89	195	223	152	901	225	108	164	206	140	843	1,744
267	122	165	147	157	858	173	117	145	126	135	696	1,554
195	29	64	102	93	483	142	29	59	67	92	389	872
133	31	74	132	117	487	116	46	85	89	96	432	919
55	12	46	31	43	187	51	9	41	30	28	159	346
48	10	24	16	25	123	40	8	16	23	21	108	231
56	15	51	72	65	259	43	10	32	47	57	189	448
142	29	95	111	95	472	114	22	43	52	86	317	789
60	24	74	100	80	338	42	18	46	50	64	220	558
367	169	160	219	188	1,103	259	130	161	138	179	867	1,970
182	19	83	191	136	611	165	18	55	121	119	468	1,079
93	19	40	44	23	219	67	17	24	35	29	172	391
108	45	70	109	155	487	107	28	53	75	101	364	851
205	100	120	148	137	710	184	58	101	108	121	572	1,282
103	57	75	56	5	296	56	43	77	14	12	202	498
92	186	95	49	31	453	117	87	97	62	16	379	832
93	19	51	94	43	300	58	16	41	62	42	217	517
84	13	32	50	53	232	60	21	40	39	36	196	428
10	30	43	87	35	205	10	10	35	30	41	126	331
123	42	117	196	76	554	188	130	98	169	102	687	1,241
57	30	78	81	61	307	44	34	52	54	35	219	526
153	35	135	286	221	830	114	32	104	228	159	637	1,467
83	31	132	248	160	654	65	14	113	179	148	519	1,173
149	63	238	528	179	1,157	98	33	188	406	198	923	2,080
72	96	135	266	113	682	95	58	35	49	16	253	935
162	45	155	358	136	856	112	25	107	223	141	608	1,464
31	...	12	3	74	120	224	12	12	152	221	621	741
52	61	160	284	143	700	38	41	130	143	119	471	1,171
9	1	27	34	25	96	13	8	25	23	26	95	191
87	120	89	137	100	533	56	37	75	81	53	302	835
52	34	95	121	54	356	57	20	69	67	46	259	615
67	42	113	110	78	410	63	64	82	80	70	359	769
49	86	57	71	136	399	90	69	67	58	81	365	764
4,084	1,773	3,362	5,086	3,386	17,691	3,527	1,435	2,647	3,524	3,052	14,185	31,876

APPEN

REGISTER OF DEATHS IN EACH MONTH, (ACCORDING TO SEX

Divisions.	Districts.	Total.					
		Males.					
		Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.
Meerut.	Dehra Doon, ...	254	63	232	201	94	844
	Scharunpore, ...	4,309	673	1,752	2,241	1,532	10,507
	Moozuffernuggur, ...	3,883	832	1,469	1,838	1,229	9,251
	Meerut, ...	4,564	767	1,617	1,800	1,854	10,602
	Boolundshuhur, ...	5,789	385	752	904	872	8,702
Kumaon.	Allygurh, ...	5,744	583	1,050	1,234	1,124	9,735
	Kumaon, ...	[illegible]93	257	712	569	511	3,252
	Gurhwal, ...	1,183	169	377	366	314	2,409
Rohilkhund.	Bijnour, ...	1,316	286	749	871	615	3,837
	Moradabad, ...	3,008	475	1,054	1,239	980	6,756
	Budaon, ...	1,725	475	1,172	1,337	1,055	5,764
	Bareilly, ...	6,401	1,799	2,796	3,149	2,472	16,617
	Shahjehanpore, ...	3,849	484	1,241	1,932	1,402	8,908
	Terai, ...	720	157	414	317	102	1,710
Agra.	Muttra, ...	5,725	597	983	1,438	1,428	10,171
	Agra, ...	8,060	1,760	2,005	2,498	2,010	16,323
	Furruckabad, ...	2,059	1,942	1,913	1,300	174	7,388
	Mynpoorie, ...	2,643	1,920	887	680	183	6,313
	Etawah, ...	2,830	600	847	1,330	684	6,291
	Etah, ...	3,537	395	634	730	701	5,997
Jhansie.	Jaloun, ...	1,123	449	1,271	1,504	891	5,238
	Jhansie, ...	3,716	892	2,662	3,441	1,313	12,024
	Lullutpore, ...	1,762	1,067	1,512	1,424	874	6,639
Allahabad.	Cawnpore, ...	6,407	1,209	2,234	3,379	2,079	15,308
	Futtehpore, ...	4,444	638	1,287	1,900	1,221	9,490
	Banda, ...	6,083	914	2,530	3,961	1,513	15,001
	Allahabad, ...	1,314	1,391	1,730	1,769	1,702	7,906
	Humeerpore, ...	4,187	740	1,948	2,873	1,161	10,909
	Jounpore, ...	1,936	1,677	2,218	1,862	1,463	9,156
Benares.	Goruckpore, ...	2,731	1,662	4,220	3,296	1,507	13,416
	Bustee, ...	942	860	1,441	872	592	4,707
	Azimgush, ...	2,972	2,208	2,706	2,111	1,996	11,993
	Mirzapore, ...	2,979	1,149	2,281	1,822	807	9,038
	Benares, ...	2,984	1,309	2,027	1,596	798	8,714
	Ghazeepore, ...	2,156	2,239	2,427	3,144	3,039	13,005
	Total, ...	1,14,538	33,023	55,150	60,918	40,292	3,03,921

DIX B.—(*Concluded.*)

AND AGES) IN THE N.-W. PROVINCES, FOR THE YEAR 1869.

Females.						Total Males and Females.
Under 10.	10 to 20.	20 to 40.	40 to 60.	Above 60.	Total.	
167	48	136	97	58	506	1,350
3,210	582	1,324	1,298	1,378	7,792	18,299
3,242	960	1,255	1,344	1,088	7,839	17,090
3,551	959	1,155	1,312	1,642	8,619	19,221
4,869	379	736	600	789	7,373	16,075
3,899	632	944	900	856	7,231	16,966
1,129	239	498	450	420	2,736	5,988
1,005	193	332	280	294	2,104	4,513
993	175	438	498	524	2,628	6,465
2,429	395	785	680	824	5,113	11,869
1,170	387	722	704	750	3,733	9,497
4,760	1,373	1,839	1,842	2,044	11,858	28,475
3,256	508	877	1,023	1,113	6,787	15,695
626	127	244	210	93	1,300	3,010
4,381	507	931	977	1,110	7,906	18,077
6,036	1,526	1,481	1,640	1,521	12,204	28,527
1,391	1,462	1,636	962	146	5,597	12,985
2,642	1,845	854	518	139	5,998	12,311
1,928	423	621	775	521	4,268	10,559
2,359	398	549	470	443	4,219	10,216
643	1,023	683	971	794	4,114	9,352
2,854	687	1,444	2,121	1,201	8,307	20,331
1,390	796	1,218	1,087	718	5,209	11,848
4,670	894	1,923	2,320	1,618	11,425	26,733
3,617	456	1,141	1,393	1,028	7,635	17,125
5,112	574	1,677	2,964	1,414	11,741	26,742
1,092	1,610	1,324	1,182	959	6,167	14,073
3,232	375	1,227	1,907	1,077	7,818	18,727
1,234	875	1,235	1,119	883	5,346	14,502
1,763	988	2,718	1,817	1,143	8,429	21,845
839	572	1,214	663	558	3,846	8,553
1,921	1,282	1,653	1,305	1,499	7,660	19,653
2,506	814	1,575	1,267	706	6,868	15,906
2,404	926	1,545	1,074	645	6,594	15,308
1,351	1,649	1,934	1,856	2,072	8,862	21,867
87,671	26,639	39,868	39,636	32,018	2,25,832	5,29,753

APPENDIX C.

Register of Deaths according to Castes for 1869.

Divisions.	Districts.	*Brahmins.*		*Kshatryas.*		*Vaisyas.*		*Sudras.*		*Religious Sects.*		*Mahomedans.*		*Europeans.*		*Eurasians.*		*Native Christians.*		*Miscellaneous.*		*Number of Deaths.*		
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
KUMAON, MEERUT.	Dehra Doon, ...	87	63	286	165	15	15	356	194	16	8	64	24	...	...	...	...	19	10	1	7	844	506	1,350
	Seharunpore, ...	1,050	782	705	547	494	398	5,691	4,072	246	150	2,294	1,829	26	13	...	1	...	...	...	...	10,507	7,792	18,299
	Moozuffernuggur,	895	775	377	315	753	633	5,252	4,423	222	169	1,752	1,524	...	...	...	...	...	...	...	...	9,251	7,839	17,090
	Meerut, ...	1,203	1,009	909	1,060	776	708	4,865	3,945	71	59	2,769	1,830	...	...	...	...	8	5	1	3	10,602	8,619	19,221
	Boolundshuhur, ...	1,079	891	741	572	465	640	4,515	3,754	136	111	1,765	1,444	...	1	1	...	...	...	...	...	8,702	7,373	16,075
	Allyguh, ...	1,623	1,142	805	594	708	651	5,454	3,970	193	162	948	716	...	...	...	...	4	2	...	...	9,735	7,231	16,966
	Kumaon,	661	596	1,812	1,547	35	31	294	244	31	17	30	13	...	...	...	...	...	...	389	288	3,252	2,736	5,988
	Gurhwal, ...	505	416	770	697	109	112	971	827	24	18	4	9	1	...	...	...	...	...	25	25	2,409	2,104	4,513
ROHILKHUND.	Bijnour, ...	208	154	357	243	155	85	1,861	1,206	23	12	1,229	922	...	...	...	...	...	...	4	4	3,837	2,628	6,465
	Moradabad, ...	295	210	186	151	316	270	3,446	2,592	39	33	2,411	1,804	13	3	...	...	...	...	...	...	6,756	5,113	11,869
	Budaon, ...	318	186	537	330	215	152	4,012	2,551	75	45	607	469	...	...	...	...	...	...	...	...	5,764	3,733	9,497
	Bareilly, ...	878	564	764	697	128	90	11,771	8,133	113	71	2,947	2,298	...	...	...	...	...	1	15	4	16,617	11,858	28,475
	Shahjehanpore, ...	555	401	633	396	243	158	6,679	5,133	38	40	739	647	1	...	...	...	16	...	4	12	8,908	6,787	15,695
	Terai, ...	22	9	15	8	10	6	958	774	50	31	655	472	...	...	...	...	...	...	...	...	1,710	1,300	3,010
AGRA.	Muttra, ...	1,660	1,464	839	573	867	541	5,702	4,471	254	103	760	597	...	...	...	...	...	1	89	158	10,171	7,906	18,077
	Agra, ...	2,295	1,694	2,232	1,531	1,074	815	9,112	6,888	170	99	1,354	1,118	...	...	...	...	18	7	68	52	16,323	12,204	28,527
	Furruckabad, ...	871	527	906	595	262	215	3,788	2,906	12	6	1,541	1,341	6	4	...	...	2	3	...	...	7,388	5,597	12,985
	Mynpoorie, ...	537	498	1,064	1,056	575	560	3,392	3,203	39	44	706	637	...	...	...	...	...	...	...	...	6,313	5,998	12,311
	Etawah, ...	973	620	760	476	319	258	3,769	2,568	92	57	874	288	...	...	...	...	4	1	...	...	6,291	4,268	10,559
	Etah, ...	551	391	531	341	227	182	4,126	2,865	56	36	506	403	...	...	...	...	...	1	...	...	5,997	4,219	10,216
	Jaloun, ...	884	617	478	268	452	389	2,987	2,214	15	6	398	358	...	...	...	...	...	...	24	262	5,238	4,114	9,352
JHANSIE.	Jhansie, ...	1,115	828	663	449	375	279	9,851	6,527	40	16	280	206	...	...	...	...	...	2	...	...	12,024	8,307	20,331
	Lullutpore, ...	705	469	395	335	278	235	5,160	4,102	6	7	95	61	...	...	...	...	...	...	...	...	6,639	5,209	11,848
ALLAHABAD.	Cawnpore, ...	2,643	2,037	1,469	877	590	551	9,093	7,034	...	...	1,511	925	2	1	...	...	...	...	...	...	15,308	11,425	26,733
	Futtehpore, ...	1,307	1,021	780	529	315	243	6,146	5,038	52	26	890	778	...	...	...	...	...	...	...	...	9,490	7,635	17,125
	Banda, ...	2,493	1,965	1,545	1,129	661	544	9,574	7,520	58	29	617	505	...	...	...	...	4	...	49	49	15,001	11,741	26,742
	Allahabad, ...	1,203	1,079	85	20	1,064	934	3,948	3,488	70	2	751	359	26	12	14	13	55	41	690	219	7,906	6,167	14,073
	Humeerpore, ...	1,221	942	781	1,360	423	285	7,733	4,698	54	31	697	501	...	...	...	...	...	1	...	...	10,909	7,818	18,727
	Jounpore, ...	2,012	1,344	1,043	619	387	164	4,310	2,910	19	12	1,385	997	...	...	...	...	...	...	...	...	9,156	5,846	14,502
BENARES.	Goruckpore, ...	1,953	1,199	652	435	518	367	9,746	6,049	101	59	434	310	...	...	1	1	10	8	1	1	13,416	8,429	21,845
	Bustee, ...	733	672	278	319	474	394	2,381	1,994	10	6	829	460	2	1	...	...	...	...	...	...	4,707	3,846	8,553
	Azimgurh, ...	1,052	562	1,383	774	371	188	6,364	4,541	50	22	2,773	1,573	...	...	...	...	...	...	...	...	11,993	7,660	19,653
	Mirzapore, ...	2,949	2,458	1,512	1,212	894	637	3,316	2,341	108	54	201	126	25	11	5	8	28	22	...	...	9,038	6,868	15,906
	Benares, ...	1,264	913	900	645	337	207	5,700	4,420	3	1	470	377	23	7	1	1	13	22	3	1	8,714	6,594	15,308
	Ghazeepore, ...	1,218	853	2,015	1,362	747	530	8,003	5,406	154	67	868	644	...	...	...	...	...	...	...	...	13,005	8,862	21,867
	Total, ...	39,018	29,351	29,209	22,247	15,632	12,467	1,80,026	1,33,003	2,690	1,659	35,654	25,818	125	53	22	24	181	127	1,364	1,083	3,03,921	2,25,832	5,29,753

APPENDIX D.

Table showing the Number of Deaths in Towns of which the Population is 5,000 and upwards, in 1869.

District.	Names of Towns.	Number of Inhabitants.			Number of Deaths.			Percentage of Deaths on total Inhabitants.
		Males.	Females.	Total.	Males.	Females.	Total.	
Dehra Doon.	Dehra Khas, ...	4,245	2,602	6,847	64	47	111	1·62
Seharunpore.	Seharunpore, ...	22,658	21,461	44,119	368	152	520	1·17
	Deobund, ...	11,562	10,152	21,714	220	170	390	1·79
	Gungoh, ...	4,537	6,362	10,899	140	145	285	2·61
	Munglour, ...	5,510	4,696	10,206	61	44	105	1·02
	Jowallapore, ...	5,004	4,661	9,665	105	68	173	1·78
	Rampore, ...	4,466	3,998	8,464	42	21	63	0·74
	Roorkee (including Cantonment,) ...	4,101	3,487	7,588	136	97	233	3·07
	Umbehta, ...	3,258	3,078	6,336	91	96	187	2·95
	Landhoura, ...	2,711	2,407	5,118	65	61	126	2·46
	Total, ...	63,807	60,302	1,24,109	1,228	854	2,082	1·67
Moozuffernuggur.	Kusbeh Kyranah, ...	9,017	7,936	16,953	244	210	454	2·67
	Ditto Kandlah, ...	6,098	5,871	11,969	197	139	336	2·80
	Ditto Moozuffernuggur,	6,220	4,528	10,748	139	113	252	2·34
	Ditto Shamlee, ...	5,253	4,475	9,728	246	211	457	4·69
	Ditto Thannah Bhowun,	4,379	4,102	8,481	197	166	363	4·28
	Ditto Jullalabad, ...	4,093	3,786	7,859	134	94	228	2·90
	Ditto Jansuth, ...	3,167	2,954	6,121	98	79	177	2·89
	Ditto Meeranpore, ...	3,147	2,896	6,043	66	57	123	2·03
	Ditto Jhinjhana, ...	3,132	2,202	5,334	74	49	123	2·30
	Total, ...	44,506	38,730	83,236	1,395	1,118	2,513	3·01
Meerut.	City and Cantonment, ...	43,315	36,063	79,378	1,690	1,528	3,218	4·05
	Harpper, ...	7,555	6,739	14,294	149	118	267	1·86
	Sirdhana, ...	6,784	6,288	13,072	138	117	255	1·95
	Gurmookhtesur, ...	4,809	3,952	8,761	142	99	241	2·40
	Baraote, ...	4,248	3,833	8,081	51	31	82	1·01
	Bhagput, ...	4,290	3,597	7,887	103	102	205	2·59
	Shahdura, ...	3,770	3,457	7,227	139	135	274	3·79
	Mowana Kullan, ...	3,298	2,366	6,164	58	54	112	1·81
	Ghazeeabad, ...	3,410	3,067	6,477	171	151	322	4·97
	Pilkooah, ...	3,202	2,821	6,023	71	54	125	2·07
	Teekree, ...	3,010	2,621	5,631	44	41	85	1·50
	Kirthul, ...	3,021	2,547	5,568	10	5	15	0·26
	Chuprowlee, ...	2,854	2,412	5,266	59	22	81	1·53
	Total, ...	93,566	80,263	1,73,829	2,795	2,457	5,252	3·02
Boolundshuhur.	Khoorjah, ...	12,469	12,115	24,584	451	468	919	3·73
	Secundrabad, ...	8,222	7,746	15,968	344	332	676	4·23
	Burrun, ...	7,971	7,313	15,284	177	157	334	2·18
	Anoopshuhur, ...	6,218	4,426	10,644	152	141	293	2·75
	Shikarpore, ...	5,133	5,049	10,182	162	167	329	3·23
	Jahangeerabad, ...	4,551	4,324	8,875	173	155	328	3·69
	Debace, ...	3,663	3,504	70,167	137	120	257	3·58
	Jewur, ...	3,544	3,432	6,976	219	195	414	5·93
	Syannah, ...	2,984	2,982	5,966	147	126	273	4·57
	Goolaotee, ...	2,601	2,540	5,141	107	122	229	4·45
	Total, ...	57,356	53,431	1,10,787	2,069	1,983	4,052	3·65
Allygurh.	Coel City, ...	25,876	22,527	48,403	1,033	924	1,957	4·04
	Hatrass, ...	13,085	10,637	23,722	438	446	884	3·72
	Attrowlee, ...	7,782	7,270	15,052	201	159	360	2·38
	Secundra Rao, ...	6,700	5,731	12,431	102	92	194	1·56
	Hurdooagunje, ...	3,232	2,978	6,210	102	69	171	2·75
	Jellalee, ...	3,005	3,150	6,155	15	25	40	0·64
	Tuppul, ...	2,885	2,859	5,744	113	106	219	3·81
	Moorsan, ...	2,923	2,649	5,572	74	44	118	2·11
	Total, ...	65,488	57,801	4,23,289	2,078	1,865	3,943	3·19
Kemaon.	Almorah, ...	3,175	2,976	6,151	30	32	62	1·00
Bijnour.	Nujeebabad, ...	10,061	9,496	19,557	111	72	183	0·93
	Nugeenah, ...	9,813	9,262	19,075	63	44	107	0·56
	Bijnour, ...	7,015	5,551	12,566	68	43	111	0·88
	Chandpore, ...	5,476	5,810	11,286	78	74	152	1·34
	Keerutpore, ...	4,524	4,447	8,971	95	60	155	1·72
	Seohara, ...	4,235	4,475	8,710	20	10	30	0·34
	Nehtore, ...	4,013	4,182	8,195	71	37	108	1·31
	Ufzulgurh, ...	3,739	4,112	7,851	12	9	21	0·26
	Mundawur, ...	3,783	3,843	7,626	83	40	123	1·61
	Suhenspore, ...	3,160	3,036	6,196	12	1	13	0·20
	Sherekote, ...	2,831	2,904	5,735	44	32	76	1·32
	Dhampore, ...	2,937	2,714	5,651	48	41	89	1·57
	Jhaloo, ...	2,923	2,599	5,522	31	20	51	0·92
	Total, ...	64,510	62,431	1,26,941	736	483	1,219	0·96

APPENDIX D.

Table showing the Number of Deaths in Towns of which the population is 5,000 *and upwards, in* 1869.—(Continued).

Districts.	Names of Towns.	Number of Inhabitants.			Number of Deaths.			Percentage of Deaths on total Inhabitants.
		Males.	Females.	Total.	Males.	Females.	Total.	
Moradabad.	Moradabad, ...	29,368	27,936	57,304	182	150	332	0·57
	Sumbhul, ...	20,722	20,734	41,456	181	139	320	0·77
	Amroha, ...	15,410	16,964	32,374	210	187	397	1·22
	Chundowsee, ...	11,473	10,649	22,122	262	223	485	2·19
	Buljooree (including Kasheepore,) ...	4,271	3,982	8,253	8	4	12	0·14
	Mannuggur *alias* Kant, ...	3,921	3,587	7,508	114	80	194	2·58
	Hussunpore, ...	3,825	3,598	7,423	83	76	159	2·14
	Myheshpore (including Kasheepore,) ...	3,257	3,146	6,403	9	3	12	0·18
	Buchraon, ...	3,067	2,951	6,018	81	58	139	2·30
	Dhunourah, ...	3,192	2,190	5,382	46	35	81	1·50
	Mogulpore, ...	2,591	2,580	5,171	14	8	22	0·42
	Sirsee, ...	2,516	2,631	5,147	93	80	173	3·36
	Nerowlee, ...	2,653	2,432	5,085	41	34	75	1·47
	Total, ...	1,06,266	1,03,380	2,09,646	1,324	1,077	2,401	1·14
Budaon.	Budaon, ...	16,026	15,018	31,044	342	357	699	2·25
	Suheswan with Pooreh, ...	8,816	8,606	17,422	110	91	201	1·15
	Oojhanee, ...	4,042	3,692	7,734	40	54	94	1·21
	Bilsee, ...	2,717	2,999	5,716	27	34	61	1·06
	Allahpore, with Hamlets,	2,963	2,526	5,489	115	99	214	3·89
	Kukrallah, ...	2,863	2,529	5,392	52	27	79	1·46
	Goonour, ...	2,780	2,518	5,298	59	55	114	2·15
	Sheikhoopore, with Hamlets, ...	2,698	2,528	5,226	256	196	452	8·64
	Total, ...	42,905	40,416	83,321	1,001	913	1,914	2·29
Bareilly.	City and Cantonment, ...	56,571	49,078	1,05,649	1,041	834	1,875	1·77
	Pillibheet, ...	14,414	13,493	27,907	223	151	374	1·34
	Qusbeh Aonla, ...	5,120	4,827	9,947	106	95	201	2·02
	Do. Beesulpore, ...	4,702	4,303	9,005	88	79	167	1·85
	Newria Hosseinpore, ...	2,806	2,533	5,339	27	15	42	0·78
	Total, ...	83,613	74,234	1,57,847	1,485	1,174	2,659	1·68
Shahjehanpore.	City and Cantonment, ...	36,269	35,450	71,719	492	434	926	1·29
	Jullalabad, ...	3,156	3,238	6,394	35	26	61	0·95
	Powayan, ...	3,215	2,987	6,202	43	27	70	1·12
	Kuttra, ...	3,124	2,554	5,678	79	72	151	2·65
	Tilhur, ...	2,736	2,644	5,380	81	81	162	3·01
	Hindoo Puttee, ...	2,733	2,638	5,371	84	87	171	3·18
	Total, ...	51,233	49,511	1,00,744	814	727	1,541	1·52
Muttra.	Muttra, ...	27,091	24,449	51,540	536	398	934	1·81
	Qusbeh Bindrabun, ...	11,688	9,812	21,500	469	467	936	4·35
	Do. Jellasur, ...	6,786	6,745	13,531	425	432	857	6·33
	Do. Kosee, ...	6,917	5,493	12,410	245	217	462	3·72
	Do. Mahabun, ...	3,567	3,366	6,933	86	64	150	2·16
	Mouzah Koorsunda, ...	3,521	2,966	6,487	105	55	160	2·46
	Qusbeh Chuttah, ...	3,208	2,852	6,060	68	53	121	1·99
	Sudder Bazaar and Dumdum, ...	3,276	2,627	5,903	119	113	232	3·93
	Total, ...	66,054	58,310	1,24,364	2,053	1,799	3,852	3·09
Agra.	Agra City, ...	76,284	66,377	1,42,661	3,145	2,717	5,862	4·10
	Ferozabad, ...	6,729	6,434	13,163	250	159	409	3·10
	Futtehpore Sekree, ...	4,490	4,110	8,600	156	127	283	3·29
	Ugwar, ...	4,092	3,364	7,456	123	136	259	3·47
	Kotlah, ...	3,915	3,205	7,120	99	74	173	2·43
	Penahut, ...	3,053	3,071	6,124	101	78	179	2·72
	Nuglah Doolah Khan, ...	2,930	2,486	5,416	89	55	144	2·65
	Jengarah, ...	2,964	2,438	5,402	42	28	70	1·29
	Semrah, ...	2,896	2,469	5,365	36	14	50	0·93
	Reha Burrendah, ...	2,962	2,387	5,349	100	86	186	3·47
	Total, ...	1,10,315	96,341	2,00,656	4,141	3,474	7,615	3·79
Furruckabad.	City Furruckabad, ...	37,383	35,727	73,110	217	202	419	0·57
	Kunouj, ...	8,696	8,881	17,577	181	145	326	1·85
	Futtehgurh, ...	5,486	4,849	10,335	48	39	87	0·84
	Gird Kaimgunge, ...	4,796	3,854	8,650	49	19	68	0·78
	Khurhundee Shumsabad...,	4,133	4,295	8,428	71	56	127	1·50
	Thuttea Khas, ...	3,983	3,399	7,382	35	25	60	0·81
	Ameerabad Bumeearee, ...	4,020	3,076	7,096	22	14	36	0·50
	Allahgunge, ...	3,449	2,797	6,246	41	32	73	1·16
	Taligram, ...	2,976	3,128	6,104	75	57	132	2·16
	Chibramow, ...	3,146	2,115	5,261	36	36	72	1·36
	Total, ...	78,068	72,121	1,50,189	775	625	1,400	0·93

APPENDIX D.

Table showing the Number of Deaths in Towns of which the Population is 5,000 *and upwards, in* 1869.—(Continued).

Districts.	Names of Towns.	Number of Inhabitants.			Number of Deaths.			Percentage of Deaths on total Inhabitants.
		Males.	Females.	Total.	Males.	Females.	Total.	
Mynpoorie.	City of Mynpoorie, ...	11,730	9,449	21,179	462	378	840	3·96
	Mohumdabad, ...	5,019	4,477	9,496	193	165	358	3·77
	Bhowgong, ...	3,238	2,993	6,231	99	79	178	2·85
	Kurhul, ...	3,292	2,769	6,061	99	71	170	2·80
	Total, ...	23,279	19,688	42,967	853	693	1,546	3·59
Etawah.	Etawah, ...	14,487	12,741	27,228	157	117	274	1·00
	Phupphoond, ...	3,608	3,141	6,749	99	93	192	2·84
	Ooreya, ...	3,174	2,768	5,942	75	39	114	1·91
	Total, ...	21,269	18,656	39,919	331	249	580	1·45
Etah.	Kasgunge, ...	8,405	6,702	15,107	137	132	269	1·78
	Marehra, ...	4,945	4,725	9,670	202	213	415	4·29
	Soron, ...	5,072	4,260	9,332	269	240	509	5·45
	Allygunge, ...	4,552	3,261	7,813	150	130	280	3·58
	Etah Khas, ...	3,663	2,844	6,507	57	56	113	1·73
	Sukeet, ...	3,848	2,239	6,087	98	97	195	3·20
	Doondwarrah, ...	2,713	2,559	5,272	45	31	76	1·44
	Total, ...	33,198	26,590	59,788	958	899	1,857	3·10
Jaloun.	Calpee, ...	10,310	8,204	18,514	517	423	940	5·07
	Koonch Khas, ...	7,748	7,093	14,841	508	448	956	6·03
	Jaloun, ...	7,771	6,531	14,242	324	191	515	3·61
	Oraie Khas, ...	3,490	2,971	6,461	259	226	485	7·50
	Total, ...	29,259	24,799	54,058	1,608	1,288	2,896	5·35
Jhansie.	Mow, ...	9,613	9,797	19,410	359	289	648	3·33
	Ranecpore, ...	4,061	4,067	8,128	73	36	109	1·34
	Goor Surai, ...	3,991	3,768	7,759	78	24	102	1·31
	Bhandere, ...	3,788	3,730	7,518	256	199	455	6·04
	Barwasangor, ...	3,116	3,139	6,255	237	156	393	6·28
	Total, ...	24,569	24,501	49,070	1,003	704	1,707	3·47
Lullut-poor.	Lullutpore, ...	4,721	4,537	9,258	268	196	464	5·01
Cawnpore.	City, Civil Station and Cantonment, ...	61,815	51,786	1,13,601	1,324	1,139	2,463	2·16
	Bithour, ...	5,003	3,319	8,322	43	44	87	1·04
	Bilhoor, ...	3,465	3,024	6,489	61	59	120	1·84
	Akberpore, ...	2,878	2,619	5,497	50	34	84	1·52
	Suchendee, ...	2,906	2,590	5,496	106	84	190	3·45
	Kasheepore, ...	2,906	2,250	5,156	30	21	51	0·98
	Total, ...	78,973	65,588	1,44,561	1,614	1,381	2,995	2·07
Futteh-pore.	Futtehpore, ...	10,665	9,813	20,478	85	69	154	0·75
	Jehanabad, ...	5,723	6,197	11,920	169	152	321	2·69
	Khujoea, ...	2,550	2,600	5,150	48	35	83	1·61
	Total, ...	18,938	18,610	37,548	302	256	558	1·48
Banda.	City of Banda, ...	13,622	13,951	27,573	758	742	1,500	5·80
	Mouzah Kirwee, ...	3,928	2,926	6,854	77	56	133	1·94
	Ditto Muttound, ...	2,683	2,518	5,201	148	115	263	5·05
	Ditto Rajapore, ...	2,492	2,672	5,165	199	156	355	8·87
	Total, ...	22,726	22,067	44,793	1,182	1,069	2,251	5·02
Allahabad.	City, Civil Station and Cantonment, ...	59,205	46,721	1,05,925	1,262	1,198	2,460	2·32

APPENDIX D.

Table showing the Number of Deaths in Towns of which the Population is 5,000 *and upwards, in* 1869.—(Concluded).

Districts.	Names of Towns.	Number of Inhabitants.			Number of Deaths.			Percentage of Deaths on total Inhabitants.
		Males.	Females.	Total.	Males.	Females.	Total.	
Humeerpore.	Raat Khas, ...	10,106	7,584	17,690	159	75	234	1·32
	Khurrella, ...	4,238	3,641	7,879	90	39	129	1·63
	Mohoba Khas, ...	3,065	3,348	6,413	198	126	324	5·05
	Koolpahar, ...	3,299	3,082	6,381	133	75	208	3·25
	Mondha Khas, ...	3,002	3,226	6,228	89	68	157	2·52
	Jeitpore Khas, ...	2,916	2,964	5,880	203	160	363	6·17
	Soomerpore Khas, ...	2,770	2,590	5,360	83	47	130	2·42
	Total, ...	29,396	26,435	55,831	955	590	1,545	2·76
Jounpore.	City of Jounpore, ...	12,637	12,894	25,531	717	552	1,269	3·57
	Qusbeh Ghisscoah, ...	4,077	3,698	7,775	149	105	254	3·26
	Total, ...	16,714	16,592	33,306	866	657	1,523	4·57
Goruckpore.	City of Goruckpore, ...	25,473	25,380	50,853	843	672	1,515	2·55
	Rooderpore, ...	3,641	3,724	7,565	35	11	46	0·60
	Amowa Khas, ...	2,900	2,610	5,510	50	29	79	1·43
	Burhij Bazaar, ...	2,859	2,221	5,080	20	10	30	0·59
	Total, ...	35,073	33,935	69,008	948	722	1,670	2·42
Bus-tee.	Mehendawal, ...	3,922	3,427	7,349	60	53	113	1·53
Azim-gurh.	City of Azimgurh, ...	8,255	6,288	14,543	75	46	121	0·83
	Mhow, ...	5,367	4,904	10,271	53	30	83	0·80
	Kopagunj, ...	3,118	2,968	6,086	29	13	42	0·69
	Mobarukpore, ...	2,877	2,563	5,440	57	71	128	2·35
	Total, ...	19,617	16,723	36,340	214	160	374	1·02
Mirza-pore.	Mirzapore, ...	39,194	32,655	71,849	142	80	222	0·30
	Chunar, ...	4,872	5,253	10,125	312	287	599	5·91
	Total, ...	44,066	37,908	81,974	454	367	821	1·00
Benares.	City and Cantonment, ...	91,670	81,682	1,73,352	1,350	1,009	2,359	1·35
	Ramnuggur, ...	4,796	4,120	8,916	116	45	161	1·80
	Total, ...	96,466	85,802	1,82,268	1,466	1,054	2,520	1·38
Ghazeepore.	City of Ghazeepore, ...	18,082	16,303	34,385	356	316	672	1·95
	Sherepore, ...	6,130	4,258	10,388	76	43	119	1·14
	Reoteepore (in Zumaniah),	4,874	4,524	9,398	55	28	83	0·88
	Sheopore Deer (in Bulliah),	4,647	4,632	9,279	27	12	39	0·42
	Guhmer, ...	4,512	4,285	8,797	44	36	80	1·56
	Suhutwar (in Khurreed),	4,315	3,986	8,301	150	138	288	3·46
	Reotee ditto, ...	3,553	3,426	6,979	18	16	34	0·48
	Byreah, ...	3,501	3,265	6,766	110	75	185	2·73
	Soubursa, ...	3,194	3,326	6,520	88	39	127	1·94
	Bansdeeh, ...	3,258	2,989	6,247	23	5	28	0·44
	Munniar, ...	3,353	2,771	6,124	18	8	26	0·42
	Oosea, ...	2,245	3,444	5,689	90	73	163	2·86
	Rusrah, ...	3,015	2,610	5,625	53	38	91	1·61
	Barrah, ...	2,654	2,747	5,401	62	37	99	1·85
	Nurhee, ...	2,805	2,533	5,338	12	3	15	0·28
	Nawul, ...	3,359	1,896	5,255	85	63	148	2·81
	Total, ...	73,497	66,995	1,40,492	1,267	930	2,197	1·53
	Grand Total, ...	15,66,004	14,08,649	29,74,653	37,599	31,094	68,693	2·30

APPENDIX E.

Table showing the Percentage of Deaths of Male and Female Population, and of total Population in each District of the North-Western Provinces, for the year 1869.

Divisions.	Districts.	Male. Population.	Male. Number of deaths In 1869.	Male. Number of deaths In 1868.	Male. Percentage of Deaths on Population In 1869.	Male. Percentage of Deaths on Population In 1868.	Female. Population.	Female. Number of deaths In 1869.	Female. Number of deaths In 1868.	Female. Percentage of Deaths on Population In 1869.	Female. Percentage of Deaths on Population In 1868.	Total. Population.	Total. Number of deaths In 1869.	Total. Number of deaths In 1868.	Total. Percentage of Deaths on Population. In 1869.	Total. Percentage of Deaths on Population. In 1868.
Ku-maon, Meerut.	Dehra Doon, ...	61,288	844	784	1·37	1·27	41,543	506	447	1·21	1·07	1,02,831	1,350	1,231	1·31	1·17
	Scharunpore, ...	4,75,841	10,507	9,630	2·20	2·02	3,90,642	7,792	6,570	1·99	1·68	8,66,483	18,299	16,200	2·11	1·86
	Moozuffernuggur, ...	3,70,066	9,251	6,494	2·09	1·75	3,12,123	7,839	4,456	1·51	1·42	6,82,189	17,090	10,950	2·50	1·60
	Meerut, ...	6,47,681	10,602	8,201	1·63	1·26	5,51,912	8,619	6,153	1·56	1 11	11,99,593	19,221	14,354	1·60	1·19
	Boolundshuhur, ...	4,24,769	8,702	6,184	2·04	1·45	3,75,712	7,373	4,908	1·96	1·30	8,00,481	16,075	11,072	2·00	1·38
Rohilkhund.	Allygurh, ...	4,99,649	9,735	5,999	1·94	1·20	4,25,889	7,231	4,442	1·69	1·04	9,25,538	16,966	10,441	1·83	1·12
	Kumaon, ...	2,09,015	3,252	2,348	1·62	1·17	1,85,775	2,736	1,955	1·47	1·05	3,85,790	5,988	4,303	1·55	1·11
	Gurhwal, ...	1,27,886	2,409	2,477	1·88	1·93	1,20,856	2,104	2,125	1·74	1·75	2,48,742	4,513	4,602	1·81	1·85
	Bijnour, ...	3,69,022	3,837	4,047	1·03	1·09	3,21,953	2,628	2,750	0·81	0·85	6,90,975	6,465	6,797	0·93	0 97
	Moradabad, ...	5,80,451	6,756	8,481	1·16	1·46	5,14,855	5,113	6,203	0·98	1·20	10,95,306	11,869	14,684	1·08	1·34
	Budaon, ...	4,79,774	5,764	3,902	1·20	0·81	4,10,035	3,733	2,832	0 91	0 70	8,89,810	9,497	6,734	1·06	0·75
	Bareilly, ...	7,83,008	16,617	10,901	2 12	1·39	6,81,191	11,858	7,923	1·74	1 16	14,64,199	28,475	18,824	1·94	1·28
	Shahjehanpore, ...	5,85,975	8,903	7,323	1·52	1·24	3,32,875	6,787	5,250	2·03	1·57	9,18,850	15,695	12,573	1·70	1·36
	Teral, ...	51,993	1,710	1,072	3·28	2·06	39,809	1,300	797	3 26	2·00	91,802	3,010	1,869	3·27	2·03
Agra.	Muttra, ...	4,35,070	10,172	4,816	2·33	1·10	3,65,251	7,906	3,873	2·16	1·06	8,00,321	18,077	8,689	2·25	1·08
	Agra, ...	5,57,289	16,323	9,152	2·92	1·64	4,71,305	12,204	7,239	2·58	1·54	10,28,544	28,527	16,441	2·77	1·59
	Furruckabad, ...	5,01,579	7,388	4,211	1·47	0·83	4,14,364	5,597	3,027	1·35	0·73	9,15,943	12,985	7,238	1·41	0·79
	Mynpoorie, ...	3,91,885	6,313	4,900	1·61	1 25	3,08,335	5,998	3,746	1·94	1·21	7,00,220	12,311	8,646	1·75	1·23
	Etawah, ...	3,48,997	6,291	2,644	1·80	0·75	2,77,447	4,268	1,721	1·53	0·62	6,26,444	10,559	4,365	1·68	0·69
	Etah, ...	3,42,287	5,997	4,834	1·75	1·41	2,72,064	4,219	3,772	1·55	1·44	6,14,351	10,216	8,606	1·66	1·39
	Jaloun, ...	2,21,341	5,248	1,508	2·36	0·68	1,83,991	4,114	975	2·23	0·53	4,05,272	9,352	2,483	2·30	0·61
Jhansie.	Jhansie, ...	1,88,810	12,024	1,196	6·36	1·05	1,68,964	8,507	1,194	1·49	0·70	3,57,774	20,331	3,189	5·68	0·88
	Lullitpore, ...	1,29,826	6,639	1,852	5·11	1·42	1,18,320	5,209	1,350	4·40	1·14	2,48,146	11,848	3,202	4·77	1·29
Allahabad.	Cawnpore, ...	6,36,166	15,303	6,408	2·40	1·00	5,52,696	11,425	4,877	2·06	0 88	11,88,862	26,733	11,285	2·24	0·94
	Futtehpore, ...	3,56,256	9,490	3,747	2·66	1·05	3,24,530	7,635	3,165	2·35	0 97	6,80,786	17,125	6,912	2·51	1·01
	Banda, ...	3,78,251	15,091	5,385	3 98	1·42	3,46,121	11,741	4,079	3·39	1·17	7,24,372	26,742	9,464	3·69	1·30
	Allahabad, ...	7,34,503	7,906	5,070	1·07	0·66	6,58,680	6,167	3,755	0·93	0·57	13,93,183	14,073	8,825	1·01	0·63
	Humeerpore, ...	2,74,158	10,909	3,597	3·97	1 31	2,46,783	7,818	2,429	3·16	0·97	5,20,941	18,727	6,026	3·58	1·15
	Jounpore, ...	5,55,847	9,156	6,988	1·64	1·23	4,59,580	5,346	4,888	1·16	1·06	10,15,427	14,502	11,876	1·42	1·16
Benares.	Goruckpore, ...	10,51,260	13,416	8,515	1·27	0·80	9,32,556	8,429	4,685	0·90	0·50	19,83,816	21,845	13,200	1·10	0·66
	Bustee, ...	7,63,999	4,707	3,267	0 61	0·42	6,91,698	3,846	2,868	0·55	0·34	14,55,697	8,553	5,635	0·58	0·38
	Azimgurh, ...	7,52,500	11,993	6,134	1·59	0·81	6,33,372	7,660	3,371	1 20	0·53	13,85,872	19,653	9,505	1·41	0·68
	Mirzapore, ...	5,42,777	9,038	8,064	1·66	1·48	5,11,636	6,868	5,934	1·34	1·15	10,54,413	15,906	13,998	1·50	1·32
	Benares, ...	4,12,748	8,714	6,742	2·11	1·63	3,80,529	6,594	4,991	1·73	1·31	7,93,277	15,308	11,733	1·92	1·47
	Ghazeepore, ...	7,01,622	13,005	8,659	1·85	1·23	6,30,781	8,862	5,224	1·40	0·82	13,32,403	21,867	13,893	1·64	1·04
	Total, ...	1,59,34,540	3,03,924	1,86,312	1·90	1·16	1,36,54,113	2,25,832	1,33,574	1 65	0·97	2,95,88,653	5,29,753	3,19,886	1·79	1·08

APPENDIX F.

Table showing the Percentage of Deaths on Population in 1866, 1867, 1868 *and* 1869, *in the North-Western Provinces.*

Divisions.	Districts.	1869.	1868.	1867.	1866.
Meerut.	Dehra Doon, ...	1·31	1·17	1·84	1·14
	Seharunpore, ...	2·11	1·86	1·55	1·96
	Moozuffernuggur, ...	2·50	1·60	2·01	1·99
	Meerut, ...	1·60	1·19	1·64	1·19
	Boolundshuhur, ...	2·00	1·38	1·23	0·87
	Allygurh, ...	1·83	1·12	1·14	0·93
Kumaon.	Kumaon, ...	1·55	1·11	1·13	...
	Gurhwal, ...	1·81	1·85	1·66	...
Rohilkund.	Bijnour, ...	0·93	0·97	1·97	1·63
	Moradabad, ...	1·08	1·34	2·25	1·46
	Budaon, ...	1·06	0·75	1·36	1·04
	Bareilly, ...	1·94	1·28	2·07	2·47
	Shahjehanpore, ...	1·70	1·36	2·35	3·01
	Terai, ...	3·27	2·03	3·45	3·06
	Muttra, ...	2·25	1·08	1·23	0·85
Agra.	Agra, ...	2·77	1·59	0·56	0·97
	Furruckabad, ...	1·41	0·79	0·91	1·02
	Mynpoorie, ...	1·75	1·23	1·36	1·10
	Etawah, ...	1·68	0·69	0·90	0·66
	Etah, ...	1·66	1·39	1·19	0·74
Jhansie.	Jaloun, ...	2·30	0·61	0·51	0·53
	Jhansie, ...	5·68	0·88	0·84	0·84
	Lullutpore, ...	4·77	1·29	1·62	2·08
Allahabad.	Cawnpore, ...	2·24	0·94	1·29	1·19
	Futtehpore, ...	2·51	1·01	1·37	1·20
	Banda, ...	3·69	1·30	1·96	1·42
	Allahabad, ...	1·01	0·63	0·65	0·62
	Humeerpore, ...	3·58	1·15	0·92	0·99
	Jounpore, ...	1·42	1·16	0·72	0·74
Benares.	Goruckpore, ...	1·10	0·66	0·78	0·38
	Bustee, ...	0·58	0·38	0·69	0·37
	Azimgurh, ...	1·41	0·68	0·55	0·64
	Mirzapore, ...	1·50	1·32	0·82	1·02
	Benares, ...	1·92	1·47	1·06	1·34
	Ghazeepore, ...	1·64	1·04	0·82	0·84

APPENDIX G.

Classified List of the causes of Death in the North-Western Provinces, for the year 1869.

Causes.	Males.	Females.	Total of 1869.	Total of 1868.
CLASS I.				
Zymotic Diseases.				
Order 1.—*Miasmatic Diseases.*				
Remittent Fever,	1,32,959	99,268	2,32,227	1,71,851
Small-pox,	51,637	39,133	90,770	29,983
Dysentery and Diarrhœa,	17,693	13,759	31,452	20,680
Cholera,	40,010	29,532	69,542	16,398
Ague,	6,989	5,151	12,140	11,301
Hooping Cough,	5,127	4,032	9,159	7,783
Croup,	2,145	1,427	3,572	3,441
Rheumatism,	1,170	933	2,103	843
Measles,	289	213	502	167
Influenza,	1,049	895	1,944	1,319
Boils,	771	725	1,496	1,358
Typhus Fever,	1,272	1,003	2,275	1,354
Quinsy,	33	9	42	25
Childbed fever,	...	190	190	160
Erysipelas,	70	67	137	177
Opthalmia,	85	79	164	153
Carbuncle,	...	...	...	...
Diptheria,	209	157	366	203
Plague,	728	482	1,210	1,478
Mumps,	118	102	220	29
Scarlet Fever,	2	4	6	10
Hospital Gangrene,	2	...	2	1
Total,	2,62,358	1,97,161	4,59,519	2,68,714
Order 2.—*Enthetic Diseases.*				
Leprosy,	765	281	1,046	1,059
Syphilis,	455	155	610	510
Gonorrhœa,	163	28	191	212
Polypus,	7	3	10	7
Bubo,	4	2	6	26
Elephantiasis,	42	38	80	57
Phymosis,	36	8	44	30
Orchitis,	6	...	6	3
Itch,	2	3	5	1
Strictura Urethræ,	2	...	2	1
Total,	1,482	518	2,000	1,906
Order 3.—*Dietetic Diseases.*				
Intemperance,	10	5	15	33
Opium eating,	41	97	138	84
Scurvy,	1	2	3	33
Total,	52	104	156	150
Order 4.—*Parasitic Diseases.*				
Worms in the nose,	89	119	208	157
Worms (*kind* not specified),	46	22	68	269
Guinea-worm,	1	1	2	6
Tape-worm,	2	1	3	3
Thrush,	4	1	5	9
Scabies,	...	...	...	...
Total,	142	144	286	444
CLASS II.				
Constitutional Diseases.				
Order 1.—*Diathetic Diseases.*				
Dropsy,	885	502	1,387	1,158
Anæmia,	411	227	638	40
Gout,	215	187	402	202
Mortification,	38	25	63	3
Cancer,	46	19	65	22
Total,	1,595	960	2,555	1,425

APPENDIX G.—(*Continued.*)

Classified List of the causes of Death in the North-Western Provinces, for the year 1869.

Causes.	Males.	Females.	Total of 1869.	Total of 1868.
Order 2.—Tubercular Diseases.				
Consumption and Phthisis,	1,409	1,199	2,608	3,685
Tuberculosis,	279	163	442	304
Scrofula (King's evil),	16	15	31	30
Mesenteric disease,	6	29	35	201
Total,	1,710	1,406	3,116	4,220
CLASS III.				
LOCAL DISEASES.				
Order 1.—Diseases of the Nervous System.				
Fits and Epilepsy,	867	728	1,595	1,970
Apoplexy,	466	283	749	716
Paralysis,	658	508	1,166	744
Inflammation of the brain,	1,239	850	2,089	1,332
Neuralgia,	144	98	242	286
Madness,	206	102	308	123
Hysteria,	189	132	321	392
Lock-Jaw,	92	49	141	98
Inflammation of the ear,	12	10	22	85
Convulsions,	2	1	3	1
St. Vitus' Dance,	13	8	21	15
Total,	3,888	2,769	6,657	5,762
Order 2.—Diseases of the Circulatory System.				
Fainting,	13	5	18	38
Aneurism,	47	12	59	2
Inflammation of the heart,	363	291	654	294
Broken heart,	184	122	306	133
Palpitation,	...	...	...	...
Total,	607	430	1,037	467
Order 3.—Diseases of the Respiratory System.				
Asthma,	4,357	3,494	7,851	7,581
Pleurisy,	522	514	1,036	523
Inflammation of lungs,	495	289	784	343
Bronchitis,	236	210	446	329
Bleeding of nose,	8	19	27	36
Total,	5,618	4,526	10,144	8,812
Order 4.—Diseases of the Digestive System.				
Colic,	1,579	831	2,410	1,594
Inflammation of spleen,	716	347	1,063	1,266
Inflammation of liver,	264	195	459	874
Abdominal dropsy,	61	47	108	91
Stomatitic,	544	311	855	235
Constipation,	211	86	297	292
Piles,	143	36	179	180
Jaundice,	96	51	147	154
Indigestion,	139	148	287	237
Peritonitis,	5	3	8	212
Fistula,	49	65	114	4
Vomiting of blood,	13	4	17	35
Eating mud,	...	...	...	20
Hernia,	1	...	1	...
Intussusception of bowel,	195	133	328	290
Total,	4,016	2,257	6,273	5,484

APPENDIX G.—(*Continued.*)

Classified List of the causes of Death in the North-Western Provinces, for the year 1869.

Causes.	Males.	Females.	Total of 1869.	Total of 1868.
Order 5.—Diseases of the Urinary System.				
Inflammation of the kidney, ...	213	146	359	289
Stone and gravel, ...	137	82	219	107
Inflammation of the bladder, ...	52	30	82	79
Diabetis, ...	98	16	114	30
Retention of urine, ...	16	10	26	3
Bloody urine, ...	35	7	42	6
Total, ...	551	291	842	514
Order 6.—Diseases of the Generative System.		*Nil.*		
Order 7.—Diseases of the Locomotive System.				
Necrosis, ...	6	4	10	8
Inflammation of the bones, ...	...	...	...	...
Total, ...	6	4	10	8
Order 8.—Diseases of the Integumentary System.				
Disease of the skin (not specified), ...	389	288	677	487
Abscess, ...	343	269	612	493
Prurigo, ...	26	14	40	63
Phlegmon, ...	5	3	8	3
Ulcer, ...	62	50	112	151
Ring-worm, ...	62	44	106	169
Whitlow, ...	3	1	4	8
Nettle-rash, ...	...	...	...	16
Pemphigus, ...	...	...	...	1
Total, ...	890	669	1,559	1,391
CLASS IV.				
DEVELOPMENTAL DISEASES.				
Order 1.—Developmental Diseases of Children.				
Premature birth, ...	...	...	...	2
Still-born, ...	829	560	1,389	1,015
Teething, ...	330	213	543	548
Total, ...	1,159	773	1,932	1,565
Order 2.—Developmental Diseases of Women.				
Child-birth, ...	...	485	485	481
Abortion, ...	...	80	80	152
Menorrhogœa, ...	...	64	64	87
Miscarriage, ...	...	138	138	35
Amenorrhœa, ...	...	125	125	40
Total, ...	...	892	892	795
Order 3.—Developmental Diseases of old People.				
Old Age, ...	2,450	2,087	4,537	3,952
Total, ...	2,450	2,087	4,537	3,952
Order 4.—Diseases of Nutrition.				
Atrophy (includes debility and premature (old age),	1,959	1,617	3,576	2,315
Total, ...	1,959	1,617	3,576	2,315

APPENDIX G.—(*Concluded.*)

Classified List of the causes of Death in the North-Western Provinces, for the year 1860.

Causes.	Males.	Females.	Total of 1869.	Total of 1868.
CLASS V.				
VIOLENT DEATHS AND DISEASES.				
Order 1.—*Accident.*				
Drowning, ...	1,197	1,102	2,299	2,242
Contusion, crushed by falling walls, roofs, &c., ...	196	165	361	318
Concussion, fall from trees, &c., ...	732	80	812	453
Privation, ...	1,709	1,188	2,897	336
Burn or scald, ...	301	253	554	312
Sun-stroke, ...	4,281	2,105	6,386	296
In clearing wells, ...	59	78	137	163
Wounds and contusions, ...	111	11	122	177
Lightning, ...	42	9	51	37
Gunshot wounds, ...	5	...	5	7
Hail-stone, ...	4	1	5	4
Explosion of powder, ...	1	1	2	21
Snake-bite, ...	858	911	1,769	...
Bitten by other reptiles, ...	36	13	49	1,702
Killed by animals, ...	292	193	485	454
Hydrophobia, ...	155	72	227	190
Accidents not specified, ...	2,212	1,150	3,362	1,442
Total, ...	12,191	7,332	19,523	8,154
Order 2.—*Battle.*		*Nil*		
Order 3.—*Homicide.*				
Murder, ...	51	17	68	117
Killed in an affray, ...	31	5	36	21
Poisoning, ...	20	15	35	25
By violence, ...	5	6	11	28
Killed by thieves, ...	11	2	13	9
Ditto in dacoity, ...	1	...	1	4
Strangled, ...	16	2	18	11
Killed while stealing, ...	1	...	1	...
Killed by madmen, ...	...	...	...	...
Total, ...	136	47	183	215
Order 4.—*Suicide.*				
Cause not specified, ...	49	97	146	82
Drowning, ...	...	1	1	23
Hanging, ...	27	23	50	26
Burning, ...	3	3	6	...
Poisoning, ...	5	9	14	4
Incised wounds, ...	8	6	14	1
Total, ...	92	139	231	136
Order 5.—*Execution.*				
Hanging, ...	31	4	35	46
Total, ...	31	4	35	46
Deaths reported without specified cause, ...	2,988	1,702	4,690	3,411
Grand Total, ...	3,03,921	2,25,832	5,29,753	8,19,886

ORDERS OF GOVERNMENT.

No. 156A. OF 1870.

FROM

C. A. ELLIOTT, ESQ.,

Offg. Secy. to Government, N.-W. Provinces,

To

C. PLANCK, ESQ.,

Sanitary Commissioner, N.-W. Provinces.

DATED ALLAHABAD, THE 25TH NOVEMBER, 1870.

SIR,

GENL. DEPT. (SANTN.)

I HAVE received and laid before His Honor the Lieutenant-Governor your Annual Report for the year 1869, and I am directed to communicate the following observations and orders thereon:—

Paras. 1 *to* 3.

2. Since the year 1866 there has not been so high a death-rate as that of the past year. The great mortality is attributed partly to atmospheric influences, to the fierce and continued heat of May and June, and the tardy and lingering rains, and partly to the influences of scarcity and want, sapping the vigour of many constitutions and predisposing them to disease.

3. The following percentage-table of deaths from several causes, calculated on the whole number of deaths for each year, shows the comparative prevalence of different diseases:—

	1868.	1869.
Fever, ...	54	47
Small-pox, ...	10	17
Dysentery and Diarrhœa, ...	6	6
Cholera, ...	5	13
Other causes,...	25	17
	100	100

4. Fever numbered 246,838 victims in 1869, against 173,205 in the previous year; and yet, so great was the increase of deaths from cholera and small-pox, that the proportion of deaths from fever to the whole number of deaths has diminished.

Para. 4.

5. The actual numbers given in the returns are, no doubt, very far short of the true numbers; but the degree of imperfection under the existing system of registration is believed to vary so little from year to year that the ratios deduced from the comparison of the figures of one year with those of another may be accepted as approximately accurate, even though the figures, as they stand, for any one year must be rejected as incorrect absolutely.

The mortuary returns have never been accepted as complete, or even as nearly exhaustive, the agency for such a registration being wholly inadequate; but it has been held that the registration was so far effective as to afford a fair but somewhat rude and imperfect index of the comparative mortality of different periods, and of the prevalence of death from different diseases.

6. FEVER.—The excessive mortality from fever in the northern districts and in Bundelkhund is very lamentable. The increased ratio of deaths from this cause towards the close of the year, shown in the table in para. 6, bears out your opinion that it was mainly due to the late rain-fall, and the long-lasting moisture of the atmosphere which resulted from it.

Paras. 5 to 7.

7. Irrigation in Saharunpore and Moozuffernuggur, and an insufficient supply of food everywhere, and that often of bad quality, doubtless had much to do with the predominance of this disease.

Paras. 7 to 9.

8. SMALL-POX.—The success of vaccination in the Hill Provinces of Kumaon and Gurhwal, which in former times suffered severely from small-pox, is now definitely established. The recorded deaths from small-pox were 93 in 1867, 11 in 1868, and 9 in 1869; and though some unregistered deaths may have occurred from this cause, yet the disease is so marked and unmistakable, that there is little likelihood of serious error in the returns.

Paras. 10 and 11.

9. It may be accepted as a fact that small-pox has been virtually banished from these tracts. This is a fact of which the Vaccination Department may be justly proud, and one which should encourage them to more strenuous exertions in the provinces which still suffer from the disease in an epidemic form.

10. The mortality from small-pox in the Plains in 1869 was three times as great as in 1868, and more than twice as great as in 1867.*

11. The districts of the Rohilkhund Division, which suffered most severely in 1867, were comparatively exempt in 1868 and 1869. The Meerut Division, which had the greatest number of deaths in 1868, shows a still larger mortality in 1869; but it was in the Agra Division that the disease raged with the greatest virulence in the year under review. In it alone the deaths from small-pox aggregated 28,986, or nearly one-third of the whole number of deaths in the North-Western Provinces from that disease.

12. The tables given by you agree with what is known as the normal course of the disease, which begins to spread in the cold months, increasing in fatality with the advance of the hot season, and dying away on the appearance of the rains; and there is perhaps reason for the belief [para. 16] that the practice of inoculation, which prevails mostly in the cold weather, frequently contributes to the spread of the epidemic.

Para. 12.

* In the Vaccination Report it is stated that the mortality from small-pox was much higher than in the present season. The reason of the apparent discrepancy is that the periods are different. The vaccination operations extend over the cold weather, and cover parts of two different years. The mortuary returns are for the calendar year. It was in the spring of 1869 (belonging to the Vaccination Report of 1868-69) that small-pox was so virulent in these Provinces.

13. It is remarkable that in the Benares Division, where inoculation is most widely practised, small-pox, though constantly present, has not, for the three years for which returns are before Government, committed any notable havoc, and the figures are more uniform than for any other division.

14. The testimony given by you in para. 15 is received with much satisfaction, as indicative of the progress of the Vaccination Department both in popularity and actual effect.

15. Your calculation of the number of annual births, and of the number of vaccinators necessary before the whole population can be fully protected from small-pox, is interesting. It is estimated that 900,000 children are born annually, of whom one-fourth die in their first year of life, and that 450 vaccinators, instead of 260, the present number, would be required to vaccinate them all. This limit must be reached before any legislation rendering vaccination compulsory could be ventured upon. The subject has been farther discussed in the Vaccination Report of the season. The Government is doing what it can to make the body of vaccinators more adequate numerically to their task; but the Supreme Government has declined a proposal for increasing the staff; and all that can at present be done to accelerate operations is to stimulate Municipalities and other local agencies to increase the number employed by them.

Para. 19.

16. CHOLERA.—The painstaking enquiry made by you into the causes and progress and the collateral influences which affect the spread of cholera, has added to the evidence already on record; but the facts seem as far as ever from leading to any definite conclusions on the subject. Even the belief that cholera is distributed by the water-supply has been, in your opinion, somewhat shaken [para. 38] by the record of the fact that, wherever cholera prevailed, those who were attacked and those who escaped drank from the same wells. The Lieutenant-Governor would be glad to be informed of the grounds of this statement.

17. The southernmost and easternmost districts suffered most, and this in a very marked ratio, and among these the disease developed itself earlier in the eastern than in the western districts; but there were few districts in which cholera was not present throughout the year. There is grave cause for the apprehension that cholera has now become endemic in the eastern districts, and the danger of epidemic outbreaks is thereby greatly multiplied.

Paras. 24 and 25.

18. Heat is found to favour cholera; it increases as the hot season advances, but the hottest months are not always the most fatal. Moisture appears to favour cholera; villages on low-lying, ill-drained land are most liable to attack; but it appears that villages on dry and elevated sites, as Akhoree in Mirzapore [para. 41], are often visited with extreme severity. On the whole a heated atmosphere, impregnated with moisture, appears most favourable to the disease, and the largest number of deaths occurred in the month of August [para. 26.]

Para. 27.

19. No very definite results as to the direction and mode of progress of the cholera of 1869 have been elicited. Into Meerut and Allahabad it appears to have been imported by travellers. In Goruckpore it broke out among a crowd of people assembled to witness an execution, and there is reason to believe that it was distributed over the district by their dispersion to their homes. In one or two other cases the disease seems to have followed the main lines of traffic, but in most instances to have sprung up spontaneously and independently in different parts; and, such being the case, measures of quarantine could have been of little use, and were not anywhere attempted [para. 34].

Para. 31.

20. The statement of the deaths from cholera in the police force of certain districts is interesting. The average mortality among the police of those districts was 2·4 per mille, while the recorded deaths of the general population were 3·4. This bears out, to a certain extent, your belief that the general registration is approximately accurate, and the smaller mortality among the police is probably due to their being better housed and better fed than the majority of their countrymen.

Para. 37.

21. The most important of the suggestions gathered together from the various districts as to the measures which should be adopted for the prevention and arrest of cholera seems to be the prohibition of the transport of the bodies of persons who have died of cholera from place to place, whether for sepulture or for *post-mortem* examination at sudder stations. In Azimgurh the removal of corpses by the order of the police is believed to have contributed to the spread of the epidemic. There is no apparent necessity for such proceedings, and the Inspector-General of Police will therefore be requested to see that the practice is strictly prohibited. The sooner the bodies are burnt or buried the better.

Para. 42.

22. For the rest, better conservancy, and in special cases strict quarantine, are the measures recommended.

23. Beyond general sanitation, the most important point to be attended to is the universal disinfection of cholera excretions, which the people should be enjoined to bury under ground promptly.

24. In the districts where cholera was most prevalent, itinerant Native doctors were employed in visiting from house to house, and village to village, and the people are said to have availed themselves eagerly of their services. These measures are generally adopted on any such outbreak; they are of great benefit, and should be in every way encouraged.

Para. 43.

25. In some places where no medical aid was afforded, the inhabitants appear to have deserted their homes, and it is observed that in your opinion this practice of temporary emigration should not be discouraged.

Para. 44.

26. You have remarked that very limited action has followed the recommendations of the Sanitary Committee assembled at Allahabad last year. The most urgent of them were, as stated—(1) the removal of impurities to a greater distance from the station, and their utilization in agricultural operations; (2) the remodelling of the Kuttra Bazaar and the improvement of its conservancy; (3) the reclamation or levelling of the excavations about the station; (4) more perfect drainage of the low land inside the Bukshee Bund. The attention of the Commissioner and Municipal Committee will again be drawn to these suggestions. The last is, however, encompassed with difficulties both of design and expense; but a project for the drainage of the City has long been under preparation, and a report on its progress will now be called for. The third should be steadily kept in view. The second is in contemplation by the Commissioner, who is maturing plans for the improvement of that part of the station. The first involves questions of Municipal expense. There may be difficulty in increasing the distance to which the sewage is taken, but there ought to be no serious obstacle in utilizing it for agriculture, and so depriving it rapidly of its noxious qualities.

Para. 46.

27. In reference to the remarks in your report regarding several of the suraies and puraos inspected by you, it is to be observed that Act XXII. of 1867, for the regulation of such places, does not apply (*vide* Section 16) to any suraie or purao which is under the direct management of the Local Government or of a Municipal Committee. It was understood that there was no need of legislation to secure the proper management of suraies under such control; but the existence of puraos such as those in Kassgunj are described to be, and the suraies of Thutteea, Chibramow, Shekoabad, and Soron, seem to show the necessity of reminding Magistrates and Municipal Committees of what is expected of them in this respect. There can be little excuse for not enforcing conservancy in them, and they should engage proper attention. By Section 7 of the Act the keeper of a suraie is required "thoroughly to cleanse the rooms and veran-"dahs, and drains, and the wells, tanks, or other sources from which water "is obtained, and to remove all noxious vegetation on or near the suraie;" and subsequent sections provide penalties for suffering suraies "to be in "a filthy or unwholesome state." The same provisions apply to puraos.

28. In connection with your remarks on what may be accomplished by the efforts of zealous and devoted men, it may be noticed that a traditional attachment exists to the names of those officers who have devoted themselves to the improvement of the towns in their districts, such as Messrs. Mayne, Hume, and Lindsay, in Etah, Etawah and Furruckabad; and this should act as a wholesome stimulus to the District Officers of the present day, who have at their command now even greater resources for carrying out works beneficial to the people than formerly existed.

Para. 163.

29. Your report contains valuable testimony to the important service performed in the larger towns of these Provinces by the Municipalities. These, it is trusted, are really beginning to make themselves felt as may be seen by passages throughout your report, in the improvement of the sanitary condition of the larger centres of population; and, as they learn more perfectly their functions and responsibilities, it may be expected that the improvement will proceed at an accelerated pace.

30. The general remarks in respect of school-houses, and the importance of constructing them so as to be comfortable and airy, deserve the attention of the Director of Public Instruction.

Para. 69.

31. The incidental tribute paid by you in paragraph 69 to the reality of the work being carried on by the Educational Department, is the more satisfactory as coming from one who was not seeking for evidence in this direction, but who observed in passing whatever affected the welfare of the people.

32. In reference to Part III. of your Report generally, I am to say that the districts of Moozuffernuggur and Saharunpore being found to suffer from a prevalent and fatal type of fever, you were desired to make a circuit of the places where the fever most prevailed. The duty has been carefully performed.

33. There can be no doubt but that the rise of the spring-level, conjoined with impeded drainage, has affected the sanitary condition of these two districts very seriously. This was clearly brought out in Dr. Cutcliffe's report, and is now further confirmed by this rapid survey.

34. The Irrigation Branch having in prospect a project for surveying the various drainage-channels and outfalls, natural and artificial, of this tract, the Lieutenant-Governor has appointed a Committee to discuss the subject in connection with the bearing of canal-irrigation and drainage on its sanitary condition. A copy of your report has been sent for the consideration of the Committee, which you have been requested to join.

35. No doubt the reduction of irrigation where too copiously practised, together with measures for greater cleanliness and better drainage in the vicinity of inhabited centres, may be expected to have the most beneficial effect in removing the causes of disease. But further remarks will be delayed until the results of the meeting above referred to are received.

36. In conclusion, I am directed to acknowledge with thanks the thorough and conscientious manner in which you have performed the inspection of the past year. The facts have been noted with great assiduity and care; and no pains have been spared in pointing out the likely sources for alleviating sickness and tendency to disease. The warm and kindly interest taken by you in the welfare of the people has also led you to notice useful points connected with various branches of the administration, and to offer suggestions which will no doubt prove of service. For this, also, the thanks of Government are due.

I have the honour to be,

SIR,

Your most obedient Servant,

C. A. ELLIOTT,

Offg. Secy. to Govt., N.-W. Provinces.

FIFTH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

1872.

ALLAHABAD:

PRINTED AT THE NORTH-WESTERN PROVINCES' GOVERNMENT PRESS,

1873.

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TABLE OF CONTENTS.

CHAPTER I.

	Page.		Page.
Mortuary registration of 1872, ...	1	Total of deaths registered, ...	2
Duty performed by police mohurrirs as registrars, ...	*ib.*	The class of those who died, ...	3
Preparation of a map of all mortuary circles,	*ib.*	The age of those who died, ...	*ib.*
		The sex of those who died, ...	4

CHAPTER II.

Meteorology of the year, ...	5	General condition of the people, ...	7

CHAPTER III.

History of mortality and chief diseases, ...	9	Deaths from fever, ...	10
Deaths from the three principal zymotic causes according to season, ...	*ib.*	Ditto small-pox, ...	12
Ratio of mortality from each cause, ...	10	Ditto cholera, ...	13
		Prevalence of dengue fever, ...	14

CHAPTER IV.

INSPECTIONS OF SANITARY COMMISSIONER—		Condition of the town of Shahjehanpore, ...	57
Brief sketch of the Meerut Division, ...	20	Ditto Pareechutgurh, ...	59
Description of the Doab, and of the small rivers or natural drainage channels, ...	21	Condition of the towns of Boolundshuhur District—	
Ditto Ganges Canal, ...	23	Khoorjah, ...	61
Ditto Grand Trunk Road, ...	25	Secundrabad, ...	68
Ditto Railway communication and of its management, ...	26	Boolundshuhur, ...	72
Suggestions for increased comfort for Native railway passengers, ...	27	Anoopshuhur, ...	75
Population of the Meerut Division, ...	29	Shikarpore, ...	77
Condition of the Meerut City, ...	30	Jehangeerabad, ...	79
Ditto Haupper, ...	32	Debhaee, ...	82
Ditto Sirdhana, ...	36	Jewur, ...	83
Ditto Gurhmooktesur, ...	38	Syanah, ...	85
Ditto Barote, ...	42	Goolaotee, ...	86
Ditto Bagput, ...	43	Condition of the towns of the Allygurh District—	
Ditto Mowana Kulan, ...	45	Allygurh, ...	88
Ditto Ghazeeabad, ...	48	Hattrass, ...	92
Ditto Pilkooah, ...	52	Atrowlee, ...	96
Ditto Kirthul, ...	55	Secundra Rao, ...	99
Condition of the town of Chuprowlee ...	*ib.*	Hurdooagunj	102
Ditto Kithor, ...	56	Julalee, ...	104
		Tuppul, ...	106
		Moorsan, ...	107

CHAPTER V.

Sanitary improvements of the past year, ...	110	Report concerning the registration of births in the North-Western Provinces, ...	110

APPENDICES.

		Page.
Appendix A., Annual Form No I.,	Deaths registered during 1872, ...	I.
Ditto B., ditto II.,	Deaths from all causes during each month of the year, ...	II. to V.
Ditto C., ditto III.,	Deaths from different causes, ...	VI. to IX.
Ditto D., ditto IV.,	Deaths according to ages, ...	X.
Ditto E., ditto V.,	Ditto ditto to classes, ...	XI.
Ditto F., ditto VI.,	Ditto from cholera, ...	XII. to XV.
Ditto G., ditto VII.,	Ditto from small-pox,...	XVI. to XIX.
Ditto H., ditto VIII.,	Ditto from fevers, ...	XX. to XXIII.
Ditto I., ditto IX.,	Ditto from bowel-complaints, ...	XXIV. to XXVII.
Ditto K., Comparative statement of deaths in town and rural circles,	...	XXVIII.

1872.

FIFTH ANNUAL

REPORT OF THE SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

CHAPTER I.

MORTUARY STATISTICS.

DURING the year 1872, Mortuary Registration has continued to receive a considerable amount of attention, and the result is that we are arriving at a correct idea of the mortality amongst the general population.

2. As a rule, I have noticed at my inspections of Mortuary Registers, which have been pretty numerous, that the police mohurrirs perform the office of Registrar with a great amount of attention, and are careful to keep their Registers and copies of monthly returns in good order.

3. But I was surprised to notice lately, in the Allygurh district, that the monthly returns, which have been supplied in duplicate form, instead of being stitched together, so that the duplicate copy might always remain in the Registrar's office, had been kept apart. The result was that no copy of the monthly return, for sometimes months together, could be found in the office. Indeed, it appeared that the forms for one month, being torn asunder, had been used as original forms for two different months.

4. I need scarcely say that this is quite wrong. To obviate its future occurrence, I propose to issue the duplicate forms stitched in sets of twelve, for one year. I have noticed, too, that the Mortuary Registers, as prepared in manuscript, with one heading applicable to all the pages as they turn over, is an arrangement very likely to lead to error in regard to the facts entered, and is certainly a hindrance to speedy and convenient registration, as the ruled columns do not always correspond well to the general heading. To obviate this, registers with printed headings to every page, the pages being of no great depth, have been supplied to all circles. These registers, of which a thousand were required, as the circles number within very few of a thousand, have, I must say, been admirably prepared at a small cost in the Government Press. They will, I think, prove to be great helps towards a perfect registration. I regret to state that I have not yet been successful in obtaining reliable statements of the populations of the rural circles in some districts. I had hoped to obtain the desired information from the officer now compiling the census statements of 1872, who has, however, informed me that he cannot supply the information. My hope now, in this respect, is centered in the Collectors of Districts, who may, I believe, be able to send me population statements after they have received the New District Census Register. This information must be obtained in some way, and I cannot rest satisfied until I have it.

5. During the past year, I have been engaged in preparing a map of the province, showing all the mortuary circles. This map, necessarily large, now approaches to completion. I think it will prove a very valuable addition to our means of judging readily of the locality of undue mortality and of the course of epidemic disease. It has been prepared upon a scale of ten miles to the inch, which just gives room enough in each circle for the entry of the necessary mortuary figures and dates. The prepara-

tion of this map was rendered absolutely necessary under the orders of the Government of India, with reference to the record therein of the facts concerning Cholera prevalence in any year.

6. But I hope to make it valuable for other purposes of not less importance; for example, the record, in close proximity, of the deaths from fever in circles where canal irrigation prevails and where it is absent.

7. The record of deaths from small-pox, for the especial information of the Vaccination Department.

8. I must say that the value of the map is much decreased by reason of the blank gap which the Province of Oudh makes in its centre, and this fact will make it very difficult to judge truly of the course of epidemic disease in any year by reference to the map, and I think this is to be deplored.

9. The fact is, that by language, by customs, by peculiarities, by climate, the people and land of Oudh differ in nothing from the people and land of the North-Western Provinces. The difference is in name only, and I think it would be a very great gain, in regard to all that this map may teach, if the mortuary circles of the 11 Oudh districts, with their mortuary record, could be included in it.

Total of Deaths Registered.

10. By the census of 1872, the population of this province is shown to be 30,884,022. During 1872, the deaths registered were 703,248, which gives an average life value of a little less than 44 years. The average value of life in the United Kingdom is almost exactly the same. Although I know quite well, that we have not yet arrived at a correct registration of deaths even numerically, yet our advance thereto during the past year, as these figures show, has been satisfactory. The progress in this respect may be seen in the table which commences Chapter III. of this report.

11. I think I can say that no appreciable source of error creeps into the account as arising from the registration of deaths which have not happened. In all my inspections of mortuary registers during the past three years, including those of some hundreds of police stations, I have never detected anything pointing to a careless writing in of figures to complete the return. Always, the register has been found written up on the established days of the chowkeedar's attendance for report; the monthly return a faithful copy of the register.

12. The real source of error still lies in the fact that many deaths occur which are not registered. In three districts, to be hereafter mentioned, the neglect in this direction is still lamentable. But I believe the day is fast approaching when the reproach of absolute absurdity in regard to the mortuary returns of any district will have disappeared; and I do hope that, as the fact becomes clearly apparent that Mortuary Registration has become an established custom against which no shadow of complaint arises, something of legal requirement in regard to the report of a death may be added to our existing arrangements.

13. It will suffice if the head of the family is required to report verbally to the chowkeedar, who could be furnished with a perforated stick and iron pin as a help to memory. Already, some chowkeedars use a knotted string for the purpose; but I find that the knots are apt to get very tight and then are not unloosed after report has been made. I find, as the result of oft repeated enquiry, that the people evince nothing of dislike or disinclination to the record of deaths for the information of Government, and I believe they would be willing to help to the perfection of the record by report which may require from them no loss of time or unusual trouble.

14. Certainly, the weak point of our present system is the uncertainty of report in the first instance, and especially in the case of the non-attendance of a chowkeedar

from sickness or other unusual circumstance. Or, where, as in a large village or a town, in which several chowkeedars are employed, and yet only one or two attend the Thannah on the day of the week fixed for report; without an aid to memory, I think it is impossible but that many deaths may be forgotten.

15. I should add that with reference to this matter we cannot rest satisfied with a numerical registration which may show the value of life to be equal to that of England, for it is quite certain that the value of life here is considerably less.

16. In the 12 districts—Terai, Bijnour, Shahjehanpore, Saharunpore, Moozuffernuggur, Meerut, Boolundshuhur, Cawnpore, Moradabad, Bareilly, Jounpore, Humeerpore; with a total population of 10,966,830—the total of deaths registered during the past year, was 330,483, showing an average life value of 33 years amongst the people of those districts.

17. In the 20 districts—Kumaon, Gurhwal, Budaon, Dehra Doon, Allygurh, Etah, Furruckabad, Mynpoorie, Agra, Etawah, Futtehpore, Banda, Allahabad, Goruckpore, Bustee, Benares, Mirzapore, Jaloun, Jhansie, and Lullutpore, with a total population of 16,073,170—the total of deaths registered during the year was 319,917, showing a life value of 50 years amongst the people of those districts, which is not an extravagantly absurd result, although it cannot be true.

18. In the three districts—Muttra, Azimgurh, and Ghazeepore, with a total population of 3,844,122—the total of deaths registered during the year was 52,848, showing a life value of 73 years amongst the people of those districts, an extravagantly absurd result to arrive at.

19. Yet, I am glad to be able to report that only in the three districts last mentioned has the registration, during 1872, been very much neglected, whereas in 1871 eleven districts were so noticeable.

Class of those who Died.

20. Taking the total population as consisting of Hindoos and Mahomedans, the following statement will show the facts as recorded in the registration of the past year:—

Class.	Estimated Population in 1872.	Deaths Registered in 1872.	Ratio of deaths to 1,000 of population.
Hindoos, ...	26,497,124	602,903	22·72
Mahomedans, ...	4,336,898	100,345	22·87
Total, ...	30,884,022	703,248	22·77

21. In 1871, the deaths of Mahomedans registered were more numerous by one per thousand of the population of that class than the deaths of Hindoos against their class. In 1872, the excess is only 0·15 per thousand, and the result, I think, witnesses very favourably to a careful and correct registration of the class of those who died.

22. By reference to Form V. in the Appendix, it will be seen that the deaths of 299 Christians were recorded. I regret that I am not able to consider these separately in the above statement. I have endeavoured to do so, but I find the census statement of 1865 contains a statement of the Native Christian population of some districts only. In future reports I trust, with the aid of the census report for 1872, not yet published, I may be able to state the ratio of deaths amongst Native Christians separately.

The Age of those who Died.

23. As stated last year, the age of persons living was given in the census report of 1865, in two classes only. Children under 12 years of age and adults, including all

above that age, and taking the figures of that report as the basis of the calculation, it is possible to prepare a table sufficiently accurate for my present purpose, which is to show, whether any nearer approach has been made to a correct registration of the deaths of children in 1872 :—

Age.	Estimated population in 1872.	Deaths registered in 1872.	Ratio of deaths to 1,000 living.
Adults, ...	20,565,245	413,001	20·08
Children under 12, ...	10,318,777	290,247	28·12
Total, ...	30,884,022	703,248	22·77

24. The table evidences a considerable advance towards correctness in respect to this matter; for, in 1871, the registration showed a death rate of only 22·9 per thousand of children living. But yet, the record of the deaths of children is far from being correct. It is certain that in England about half the total number of deaths in any year are deaths of children under 12 years of age, and I do not think it can be possible that the peculiarities which characterize the management of children in this province should result in a more favourable death rate. I think, if the deaths amongst children were correctly registered, we should arrive at a result very near indeed to the exact truth in regard to the total mortality of any year.

The Sex of those who Died.

25. The male deaths registered in 1872, were 393,564; the female deaths, 309,684. The following table will show the resulting ratios :—

Sex.	Estimated population in 1872.	Deaths in 1872.	Ratio of deaths to 1,000 living.
Males, ...	16,545,011	393,564	23·8
Females, ...	14,339,011	309,684	21·6
Total, ...	30,884,022	703,248	22·7

26. The figures show that the value of male life was 42 years; the value of female life 46 years; the average of both, as before stated, 44 years.

27. The figures for 1871 showed exactly the same difference of four years between the average value of male and female life. In England, the average of 32 years, from 1838 to 1869, was 23·3 deaths of males and 21·4 deaths of females to 1,000 living of each sex. I think the near approach to a like result, in regard to the record of this province, witnesses very favourably to the correctness of the registration of the sex of those who died.

CHAPTER II.

OF THE METEOROLOGY OF THE YEAR AND THE GENERAL CONDITION OF THE PEOPLE.

28. The principal facts in regard to the meteorology of the year 1872 appear in the following table, in juxta-position with those of the three previous years.

29. The table has been prepared from the abstracts of observations at 14 stations, published in the *Government Gazette*:—

Months.	Thermometer.												Hygrometer.				Pluviometer.			
	Maximum in Sun's rays. Degrees.				Minimum on Grass. Degrees.				Maximum in Shade. Degrees.				Minimum in Shade. Degrees.				Mean in Shade. Degrees.				Humidity of air, 100 being saturation.				Rain-fall in inches.			
	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.	1869.	1870.	1871.	1872.
January, ...	118	121	119	126	37	36	39	31	74	74	72	74	46	44	46	38	61	61	59	56	48	46	53	73	...	...	...	2·24
February, ...	129	128	128	137	47	42	48	33	80	81	79	84	52	50	53	40	67	68	67	62	42	42	50	53	...	...	...	0·75
March, ...	139	138	140	154	51	51	50	44	87	87	88	97	59	60	57	56	73	74	77	76	54	36	30	46	...	...	...	0·37
April, ...	154	147	151	157	60	60	61	51	102	97	99	101	69	66	67	63	86	83	86	82	25	31	30	44	...	...	...	0·54
May, ...	154	152	151	161	74	68	71	57	109	109	98	107	82	87	74	66	95	93	87	86	38	23	43	43	...	...	...	0·91
June, ...	154	147	145	164	78	76	75	68	105	102	95	110	83	80	77	71	94	90	86	90	40	43	65	59	1·3	7·4	10·6	4·67
July, ...	146	138	136	158	76	75	76	64	93	93	88	94	78	77	77	72	86	85	83	83	68	73	83	80	11·5	14·4	17·3	14·51
August, ...	147	136	134	154	76	73	74	70	93	91	87	95	79	77	76	73	86	83	81	84	70	74	82	84	6·2	12·9	11·0	15·07
September,	143	141	140	155	73	71	72	61	91	90	89	92	74	75	73	66	83	82	81	79	75	72	79	80	12·5	7·5	10·5	6·30
October, ...	136	135	141	148	58	62	58	47	87	91	92	91	64	68	64	56	76	80	78	74	58	53	62	63	4·3	2·0	...	...
November, ...	130	133	131	143	42	45	46	37	83	84	84	88	50	51	54	46	67	69	69	67	46	44	59	57	...	...	...	...
December, ...	121	124	120	134	39	39	41	35	76	76	74	81	47	40	45	42	62	60	59	61	57	48	65	65	...	...	1·0	0·90
Total, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35·8	44·2	50·4	46·5

30. The Meteorology of 1872 is peculiar in regard to the unusual heat of the sun's ray, the unusual cold of terrestrial radiation, and to rain-fall in the first five months of the year. Certainly, there was some rain-fall in those months in the previous years, but it was not so carefully recorded as in 1872, and the record of the humidity of the air seems to prove that there was an unusual amount of rain in those months during the past year.

31. The preceding table, although it serves well as a means of comparing the facts in different years, does not describe the actual climate of these provinces well; for, in reality, there are three much differing climates within its borders, all of which are represented by some one or more of the 14 stations of observation. The figures of the table are the averages of the 14 records. Thus, we have the climate of the hill stations, Chukrata and Raneekhet, averaging 6,513 feet above the sea; the climate of the districts influenced by the hills, Dehra Doon, Roorkee, Bareilly, Meerut and Goruckpore; and the climate of the plains represented by the observations at Agra, Futtehgurh, Lucknow, Allahabad, Benares, Jhansie and Ajmere.

32. And to illustrate this important subject, I have prepared the following table from the metereological records of the past year.

1872.

Months.	Thermometer. Maximum in Sun's rays. Degrees. Hills.	Under the Hills.	Plains.	Minimum on Grass. Degrees. Hills.	Under the Hills	Plains.	Maximum in Shade, Degrees. Hills.	Under the Hills.	Plains.	Minimum in Shade, Degrees. Hills.	Under the Hills.	Plains.	Mean in Shade Degrees. Hills.	Under the Hills.	Plains.	Hygrometer. Humidity of air Saturation being 100. Hills.	Under the Hills.	Plains.	Pluviometer. Rain-fall in Inches. Hills.	Under the Hills.	Plains.	
January, ...	125	129	131	21	34	33	61	75	78	29	39	40	45	57	59	67	78	71	2·27	3·47	1·36	
February, ...	124	136	145	20	35	35	66	83	91	28	40	43	47	61	67	56	59	55	1·30	1·25	0·24	
March, ...	145	155	157	34	44	45	80	96	103	39	51	56	59	73	79	56	53	40	1·18	0·41	0·12	
April, ...	149	156	161	58	52	55	77	102	107	41	63	63	59	81	85	51	49	39	2·08	0·40	0·10	
May, ...	148	163	164	43	58	61	85	108	112	49	65	70	67	86	94	49	48	38	1·98	1·19	0·41	
June, ...	150	162	167	60	69	69	86	110	116	56	72	76	71	91	96	69	62	53	6·62	6·81	2·32	
July, ...	148	156	163	53	71	72	76	95	98	58	74	75	67	85	87	67	82	77	8·42	10·37	14·21	
August, ...	150	163	156	57	71	74	75	96	94	59	74	76	67	85	85	69	85	84	14·69	14·43	15·62	
September,	152	154	167	49	62	63	77	94	95	53	67	70	65	80	82	64	81	78	6·20	10·54	3·28	
October, ...	150	146	155	35	46	50	76	91	96	48	55	58	61	78	77	65	66	61	...	...	...	
November, ...	143	142	147	27	38	38	73	89	95	41	47	45	57	68	70	58	60	65	0·03	...	...	
December, ...	131	134	138	26	36	36	73	80	85	34	43	43	53	62	64	65	67	63	0·52	0·28	0·05	
Average of 12 Months.	143	149	153	39	51	53	75	93	97	45	57	60	60	75	79	66	66	59	46·49	58·15	37·71	
Total, ...																		...				

33. To such as do not care to study the table as a whole, the study of its last line, the average of 12 months, will suffice to show how varying the climates are in which the men of this province may live, and how, in regard to the European portion of the population at least, a residence in the hill climate is, from a sanitary point of view, most desirable. With reference to the climate of the plains, during the past year—most worthy of consideration as the climate which affects the great body of the people—it may be described as one of unusual heat in the hot season, tempered afterwards by a good average of rain fall, and the year was remarkable also for the low temperature resulting from terrestrial radiation. The range of temperature of of the air also was unusually great. This is an important point.

34. In all years the range is great, and is perhaps one of the most common causes of disease in this most trying climate. I append a table to illustrate this point:—

35. As will appear hereafter, the year 1872 was peculiar in regard to the unusual prevalence of cholera disease, and I think it not unlikely that a cause of general debility, such as this—of the unusual range of temperature—may have been conducive, in some measure, to that prevalence.

Months.	*Range of Temperature in the shade in Degrees.*			
	1869.	1870.	1871.	1872.
January,	28	30	26	36
February,	28	31	26	40
March,	28	27	31	41
April,	33	31	32	38
May,	27	22	24	41
June,	19	22	18	39
July,	15	16	11	22
August,	14	14	11	22
September,	17	15	16	26
October,	23	23	28	35
November,	30	33	30	42
December,	29	31	29	39

36. THE GENERAL CONDITION OF THE PEOPLE, during 1872, may be gathered from a consideration of the following statement :—

Common Food Articles.	AVERAGE QUANTITY IN SEERS SOLD FOR ONE RUPEE THROUGHOUT THE PROVINCE.							
	1869.		1870.		1871.		1872.	
	June.	December.	June.	December.	June.	December.	June.	December.
Wheat,	13	9½	16	20¾	26	21½	19¼	18
Barley,	15	13½	22	27	36	28	28½	24
Jowar,	12	20	20¾	29½	26¼	23¾	13¼	19¾
Urhur (dâl),	11	7½	15½	16	25¾	20¾	18½	18½
Mustard Oil,	5	4	4½	3¾	3½	2½	2¾	*

* The new fortnightly return, published in the *Gazette*, omits the quotation for oil, which is to be regretted, as mustard oil (surson) is one of the staple articles of food amongst the millions of this Province.

37. The statement shows that the price of the common articles of food was much higher in 1872 than in 1871. Yet, I think the past year may be counted to have been a year of average plenty as years go now. The fact is, with the improved means of communication, a rupee never will again purchase the quantity of food it used to purchase. Nor is it probably desirable that it should.

38. The year 1869, through which the people managed to tide without many deaths from hunger, is the true year of test, and so long as a rupee will purchase very much more than it did in that year, the people may be said, I think, to be above want. Doubtless, the people generally have more rupees now than formerly to purchase food with; one thing is certain, that the food crops of 1871 and 1872, much of which I saw, were very good; and, again, in this last crop of 1873, now being garnered, the return was ample, and, I think, if the price of wheat in June 1873 is not much less than in June 1872, it will be useless to expect it *even* to be much less; and the people will have to make up their minds to cease to long after the days when a rupee purchased a maund of wheat as it sometimes did, not very long ago.

1.	2.	3.	4.					5.			6.			7.			8.							
			Class.					Cholera.			Small-pox.			Fevers.			Bowel Complaints.			Suicide.			W	
Number.	Districts.	Population according to Census of 1872.	Christian.	Mahomedan.	Hindoo.	Other Classes.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
1	Kumaon, ...	430,300	1	191	8,455	294		19	7	26	17	13	30	2,498	1,954	4,452	1,177	936	2,113	11	19	30	48	
2	Gurhwal, ...	309,947	3	27	5,817	3		...	...	...	37	37	74	1,590	966	2,356	1,275	1,301	2,576	16	36	52	35	
3	Tarai, ...	185,647	...	2,417	8,125	516		223	146	369	...	1	1	5,018	2,273	5,291	168	105	273	1	1	2	2	
4	Bijnour, ...	714,415	...	7,304	13,797	1,545		110	104	220	2,020	1,816	3,836	7,995	6,471	14,466	1,276	860	2,136	15	11	26	9	
5	Moradabad, ...	1,118,943	10	9,936	14,728	4,575		596	535	1,131	883	603	1,286	10,312	7,940	18,252	3,450	2,594	6,044	5	6	11	30	
6	Bareilly, ...	1,506,547	12	8,647	21,706	1,776		830	669	1,499	1,538	1,315	2,853	19,007	13,919	31,926	1,164	817	1,981	20	22	42	25	
7	Shahjehanpore, ...	945,705	14	4,710	20,378	1		2,317	2,086	4,403	1,650	1,409	3,059	13,273	10,645	23,918	3,542	2,940	6,482	42	86	128	16	
8	Budaon, ...	934,454	1	2,706	13,972	1,755		469	403	872	703	611	1,133	6,303	5,011	11,313	1,359	945	2,304	14	33	47	15	
9	Dehra Doon, ...	116,981	25	229	1,353	215		134	66	250	32	19	51	578	341	919	196	116	312	2	1	3	4	
10	Saharunpore,... ...	880,663	4	8,455	11,549	8,327		750	591	1,351	2,866	2,429	5,296	8,180	6,659	14,839	1,543	1,021	2,569	15	4	19	14	
11	Moozuffernuggur, ...	704,000	1	4,718	10,628	1,310		20	15	35	629	468	1,097	7,809	5,985	13,794	800	572	1,372	2	4	6	13	
12	Meerut, ...	1,271,454	61	10,911	24,941	2,293		239	211	510	445	381	826	20,312	17,896	38,209	1,786	1,197	2,983	13	5	18	13	
13	Boolundshuhur, ...	936,733	1	6,235	16,973	5,049		216	201	417	514	534	1,048	11,580	11,218	23,208	1,500	1,288	2,788	18	13	31	25	
14	Aligurh, ...	1,057,939	4	3,374	15,241	3,509		443	354	799	297	296	593	9,296	6,011	15,307	1,742	1,354	3,096	27	16	43	29	
15	Etah, ...	700,688	4	1,458	14,042	1		203	137	340	173	147	320	7,153	5,663	12,817	308	210	518	4	12	16	18	
16	Muttra, ...	892,542	1	1,396	10,314	671		253	154	407	275	267	542	4,976	3,860	8,836	842	604	1,446	13	13	26	11	
17	Furruckabad,... ...	919,091	10	1,837	13,676	1,350		1,271	1,167	2,538	59	69	128	6,957	5,040	11,997	590	385	975	37	28	65	24	
18	Mynpoory, ...	753,971	2	753	11,398	1,370		201	168	369	11	16	27	7,063	5,794	12,726	215	114	329	10	15	25	19	
19	Agra, ...	1,097,425	34	2,466	14,867	1,941		251	201	452	179	181	360	7,713	6,481	14,194	1,189	906	2,095	19	29	48	29	
20	Etawah, ...	671,247	4	911	13,555	3		804	336	1,140	19	29	48	6,669	5,148	11,817	260	222	502	6	19	25	7	
21	Cawnpore, ...	1,152,628	5	2,103	23,419	960		848	661	1,509	91	99	190	13,897	11,726	25,423	1,472	1,107	2,579	13	24	36	30	
22	Futtehpore, ...	661,585	...	1,193	12,686	50		308	216	524	85	83	168	4,491	3,881	8,372	1,749	1,434	3,183	19	15	34	16	
23	Jounpore, ...	1,022,555	1	1,490	22,091	1,060		4,417	3,834	8 251	113	116	229	6,460	6,122	14,582	224	109	433	12	38	50	18	
24	Humeerpore,...	527,540	1	632	11,968	155		48	31	77	200	173	373	3,768	3,574	6,342	2,019	1,527	3 746	18	25	43	22	
25	Banda, ...	696,443	2	651	11,957	3		114	88	202	129	128	257	4,504	3,058	7,562	1,160	844	2,004	15	35	50	17	
26	Allahabad, ...	1,382,826	55	3,058	23,582	1,046		2,017	1,600	3,615	136	120	256	9,819	7,904	17,722	2,155	1,390	3,545	20	39	59	28	
27	Goruckpore, ...	2,044,821	2	3,331	23,046	424		1,785	1,219	3,004	660	479	1,139	15,564	11,544	27,108	1,319	837	2,156	13	42	55	22	
28	Bustee, ...	1,487,572	4	3,398	28,644	771		5,348	4,189	9,537	1,329	1,482	3,362	11,231	9,291	19,852	326	147	503	6	20	26	24	
29	Azimgurh, ...	1,427,580	2	2,482	15,667	1,923		1,484	1,108	2,592	123	157	277	8,235	5,858	14,093	1,025	543	1,571	12	45	57	25	
30	Ghazeepore, ...	1,454,000	3	1,362	18,494	403		320	241	619	111	119	230	10,127	7,217	17,344	636	373	1,061	12	42	54	25	
31	Benares, ...	723,433	6	1,000	13,519	136		329	583	1,412	50	52	102	6,199	4,651	10,850	756	466	1,224	3	14	17	19	
32	Mirzapore, ...	1,087,200	11	1,582	23,424	178		889	729	1,618	176	183	359	9,937	8,174	18,111	1,163	841	2,010	16	38	54	19	
33	Jaloun, ...	400,781	...	383	6,067	164		37	29	66	...	2	2	3,088	2,192	5,280	482	279	764	7	23	30	12	
34	Jhansi, ...	311,773	2	270	8,855	26		...	...	...	74	66	140	2,778	2,135	4,913	516	340	856	17	55	72	24	
35	Lullutpore, ...	214,533	3	109	3,418	1,090		...	2	2	133	130	263	1,338	907	2,225	529	414	943	13	18	31	19	
	Total, ...	30,824,022	299	106,343	550,432	52,117		28,336	22,239	50,585	16,048	14,025	30,073	274,136	216,301	490,436	40,477	29,017	69,494	489	856	1,336	795	

RAL DISTRICTS OF THE NORTH-WESTERN PROVINCES DURING THE YEAR 1872.

9. Injuries.								10.		11.		12.														13.							14.
		Accident.			Snake-bite or killed by Wild Beasts.			Total Injuries.	All other Causes.			Total of Deaths from all Causes.		Age at time of Death.												Ratio of Deaths per 1,000 of Population.							
	Total.	Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Born dead.	Not exceeding 1 year.	1 to 6.	6 to 12.	12 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Exceeding 60.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	From all Causes.	Number.
	79	60	34	94	39	27	66	239	1,991	815	2,054	3,070	3,874	815	1,808	1,671	921	454	721	730	650	893	1,382	106	67	10·34	4·61	·62	4·77	20·73	1
	64	59	69	128	25	18	43	287	302	261	563	3,329	2,512	903	1,348	1,121	376	266	443	390	417	491	734	...	·24	7·60	2·81	·03	1·81	15·89	2
	3	10	3	13	17	14	31	49	40	38	75	2,491	2,570	6	740	389	438	446	778	679	677	930	973	1·06	...	29·09	1·47	·06	·06	32·63	3
	16	66	53	119	66	130	213	374	1,830	1,212	1,542	12,420	10,155	2,722	5,119	6,702	1,424	947	1,573	1,648	1,441	1,813	3,093	·33	5·96	20·24	2·99	·03	2·13	31·59	4
	47	99	67	166	47	70	117	341	1,252	930	2,183	16,466	12,763	3,227	6,334	6,655	2,025	1,601	2,176	2,041	2,346	2,488	3,916	1·01	1·14	16·91	5·40	·05	1·05	26·13	5
	40	62	88	150	120	166	286	516	807	551	1,358	21,196	17,939	4,594	6,284	6,130	2,753	2,223	2,326	2,493	2,776	4,377	5,109	·99	1·03	21·19	1·21	·04	·91	25·64	6
	26	151	151	302	81	123	203	659	3,057	2,425	5,482	24,181	19,913	7,788	9,271	10,458	2,551	2,067	2,603	2,624	2,718	4,063	6,181	4·65	9·03	22·25	6·63	·53	5·90	46·53	7
	24	94	62	156	63	103	166	393	1,374	963	2,337	10,379	8,182	1,130	4,006	2,943	1,009	944	1,377	1,204	1,412	1,310	2,002	·93	1·40	13·10	2·48	·42	3·38	19·72	8
	4	14	5	19	3	...	2	25	178	73	246	1,163	633	7	310	241	140	125	156	155	153	185	177	2·15	·43	7·65	2·05	·34	2·10	15·42	9
	28	48	23	71	21	13	34	152	1,150	858	2 008	14,804	11,311	267	5,223	3,235	1,052	1,877	2,443	2,230	2,067	3,161	3,021	1·03	2·01	19·64	2·91	·17	3·38	29·76	10
	16	46	28	74	10	8	18	114	361	183	445	9,597	7,290	183	3,353	2,836	1,012	924	1,703	1,630	1,662	1,587	1,324	·68	1·63	19·59	1·94	·18	·68	23·94	11
	27	74	73	147	20	19	39	231	1,055	1,012	2,447	24,921	20,284	5,233	7,229	9,358	2,910	2,422	4,106	3,866	3,935	4,509	6,370	·40	·63	30·04	2·34	·18	1·92	35·53	12
	43	53	64	120	11	22	33	232	1,371	1,092	2,463	15,896	14,158	573	6,376	3,319	1,439	1,117	1,971	1,468	1,594	2,035	3,795	·44	1·13	24·77	2·97	·24	2·43	32·19	13
	56	64	73	136	47	33	80	315	816	391	217	11,373	9,654	368	4,782	4,815	1,274	1,139	1,827	1,536	1,441	1,763	2,310	·75	·36	14·47	2·82	·29	·86	19·67	14
	18	57	78	96	11	19	30	160	772	578	1,350	6,898	6,607	178	3,774	2,845	813	814	1,143	1,031	1,368	1,736	1,906	·48	·45	19·29	·75	·29	1·02	22·12	15
	14	69	64	157	12	10	31	238	881	487	1,003	4,968	3,541	145	1,848	1,546	789	714	1,021	1,054	1,180	1,477	1,794	·43	·60	9·02	1·62	·25	1·13	13·08	16
	30	82	39	121	23	32	55	271	496	368	864	9,831	7,142	75	1,715	2,404	936	930	1,783	1,845	2,144	2,410	3,473	·76	·13	13·03	1·06	·29	·94	16·24	17
	26	65	60	143	33	32	65	249	138	91	226	8,058	5,871	71	1,897	1,596	580	908	1,606	1,534	2,152	2,605	1,330	·48	·03	14·87	·45	·03	·99	15·45	18
	170	121	82	203	17	32	49	460	1,054	713	1,767	10,840	8,483	149	3,585	3,117	824	1,017	1,749	1,586	1,700	2,281	3,135	·41	·22	12·05	1·90	·41	1·61	17·61	19
	11	21	13	34	23	32	55	125	258	272	530	8,047	6,305	57	1,877	1,351	584	692	1,173	1,007	1,284	2,237	1,804	·216	·07	17·60	·74	·13	·73	21·55	20
	33	202	142	344	58	76	134	553	1,208	943	2,147	15,717	14,789	332	2,597	4,316	1,350	1,246	3,002	3,193	4,560	5,121	5,426	1·39	·16	12·05	2·25	·43	1·05	28·19	21
	23	122	89	221	60	72	132	410	709	562	1,284	7,350	6,589	63	1,260	1,483	610	630	1,456	1,108	1,840	2,209	997	·79	·33	12·23	1·61	·63	1·94	21·06	22
	26	178	200	378	64	80	144	598	853	238	571	12,919	10,745	75	1,548	4,239	2,447	1,731	3,543	3,244	3,458	3,401	3,126	2·06	·22	14·26	·43	·28	·65	24·11	23
	40	69	25	123	46	49	94	300	1,150	830	1,930	7,454	5,388	182	3,673	1,649	416	549	1,244	1,223	1,545	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	24
	18	104	114	218	165	236	401	687	582	474	986	6,810	4,908	54	1,057	1,291	905	678	1,674	1,982	2,018	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	25
	49	251	229	480	106	143	249	837	1,017	749	1,766	15,046	12,175	116	2,547	4,897	1,646	1,211	3,091	3,295	4,066	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	26
	50	208	371	579	184	235	419	1,103	1,231	1,076	2,307	21,163	15,653	134	3,709	5,355	3,334	3,132	4,474	4,513	4,595	4,258	5,555	1·46	·52	19·76	1·03	·54	1·12	18·00	27
	32	246	272	518	104	123	227	803	477	345	820	19,913	14,903	34,817	123	5,282	3,264	2,776	3,900	3,120	3,506	3,418	3,803	3,764	6·41	2·02	19·24	·23	·23	·23	23·40	28
	37	219	313	532	54	68	122	750	426	234	660	17,664	9,456	20,103	106	1,491	2,893	1,724	1,213	1,257	1,546	2,504	3,413	3,351	1·73	·16	9·41	1·01	·59	·54	13·42	29
	32	122	349	400	41	41	82	566	338	105	443	11,792	8,471	20,263	125	1,190	2,816	1,506	1,755	2,749	2,611	2,522	3,193	3,409	·42	·16	11·28	·72	·28	·90	15·33	30
	29	75	69	144	43	74	117	307	434	293	727	8,451	6,231	14,659	83	1,681	2,249	1,112	934	1,760	1,638	1,823	1,835	1,831	1·78	·12	10·07	1·04	·56	·93	15·46	31
	38	147	186	333	177	207	384	731	1,781	961	2,323	15,911	11,291	25,202	131	3,463	4,068	1,664	1,232	2,004	2,700	2,913	3,057	3,864	1·43	·20	10·66	1·81	·71	·213	23·18	32
	20	24	23	47	36	56	92	189	734	381	915	4,356	3,560	7,916	45	935	891	309	538	623	976	1,350	1,255	574	·19	...	19·77	1·60	·07	2·39	18·00	33
	35	41	36	77	31	35	66	250	533	417	972	4,008	3,000	7,153	100	1,568	741	374	387	477	646	1,032	833	441	...	·45	16·75	2·73	·93	3·10	22·97	34
	23	44	47	91	32	56	88	193	539	441	1,000	2,379	2,047	4,626	141	1,407	619	230	288	430	445	726	571	279	...	1·23	19·87	4·79	·82	4·98	21·55	35
	1,236	3,811	3,397	6,908	1,899	2,409	4,307	13,787	27,894	20,899	48,793	393,561	309,654	703,215	6,655	111,136	127,394	45,159	60,760	70,877	68,178	78,936	79,096	80,750	1·63	·97	15·87	2·65	·44	1·98	22·77	

CHAPTER III.

HISTORY OF MORTALITY AND CHIEF DISEASES.

39. TABLE I.—*Table of Mortality for the eight years* 1865 *to* 1872.

Year.	Population.	DEATHS.			Deaths in 1,000 living.	Average of life in years.
		Male.	Female.	Total.		
1865, ...	29,405,322	335,359	239,774	575,133	19·5	51
1866, ...	,,	193,144	136,932	330,076	11·2	89
1867, ...	,,	212,461	155,419	367,910	12·5	80
1868, ...	29,588,653	186,312	133,574	319,886	10·8	92
1869, ...	,,	303,921	225,832	529,753	17·9	56
1870, ...	,,	...	...	480,378	16·2	63
1871, ...	,,	322,357	256,293	578,650	19·5	51
1872, ...	30,884,022	393,564	309,684	703,348	22·7	44

The preceding table shows that more deaths were registered in 1872 than in any former year and I think the fact, that during the past year the numerical registration of mortality should have been sufficiently perfect to show a resulting life value of 44 years, witnesses to a very great improvement in regard to this matter.

40. The relative mortality of the seasons during 1872 will appear in the following statement:—

In the cold season—January, February, November and December—210,234 deaths were registered.

In the hot season—March, April, May, and June—205,107 deaths were registered.

In the rainy season—July, August, September, and October—287,907 deaths were registered.

If the deaths had been 1,000 and the same proportions maintained as above, the numbers would have been—

In the cold season, 299—in the hot season, 292—in the rainy season, 409. In 1871 the numbers were 342 in the cold, 285 in the hot, and 373 in the rainy seasons.

It follows that during the past year the seasons of heat and rains were very unfavourable to life.

As will presently appear, this unfavourable ratio was due in part to cholera disease and in part to deaths from fever in the rainy season.

TABLE II.—*Deaths from the three principal Zymotic causes according to Season.*

Season.	FEVER.		CHOLERA.		SMALL-POX.	
	1871.	1872.	1871.	1872.	1871.	1872.
Cold season, ...	158,340	168,357	596	1,526	3,521	4,050
Hot season, ...	101,198	118,725	1,833	30,937	26,850	18,673
Rainy season, ...	162,293	203,354	1,044	18,102	8,078	7,350
Total, ...	421,831	490,436	3,473	50,565	38,449	30,073

The table shows that deaths from fever were more numerous by 41,000 in the rainy season of 1872, and the deaths from cholera more numerous by 46,000 in the hot season and rains. Small-pox was less fatal by 8,000, but the law of excessive mortality from this cause in the hot season is well marked, as usual.

TABLE III.—*Ratio of Mortality to* 1,000 *of the population from each Cause in the North-Western Provinces.*

Year.	Fever.	Bowel complaints.	Small-pox.	Injuries.	Cholera.	Other causes.
1871, ...	14·25	1·95	1·29	0·42	0·11	1·50
1872, ...	15·87	2·25	0·97	0·44	1·63	1·58

FEVER.

42. As in all years embraced by the existing record of mortality, fever has been the great cause of death during the past year. Form VIII. in the appendix shows the deaths from this cause in every district.

The deaths from this cause to 1,000 persons of the total population of the province is shown in Table III., just preceding, to have been 15·87. This common ratio has been much exceeded in some districts.

TABLE IV.—*Ratio of mortality from Fever to* 1,000 *of the population in some districts.*

Terai.	Bijnour.	Bareilly.	Shahjehanpore.	Moozuffernuggur.	Meerut.	Boolundshuhur.	Etah.	Cawnpore.
28·50	20·24	21·19	25·29	19·59	30·05	24·77	18·29	22·05

The four districts which appear first on the list all contain much land partaking of the nature of Teraie. Excepting some part of Bijnour, they all have the subsoil water comparatively near to the surface. The five districts which appear last on the list are all to some extent irrigated from the canals.

43. The question of the influence of canal-irrigation upon the prevalence of fever disease in this province is likely to be further elucidated, if not set at rest, by the completion of the Provincial Map of Mortuary Circles, which only now awaits the determination of the boundaries of the Kumaon Mortuary Circles to be complete.

The map shows the irrigated and non-irrigated circles in every district, and when it can be printed for publication, it may be possible to show the ratio of mortality separately of each circle on the map from every cause.

44. Of the five districts on the list, I think that of Etah is well suited to serve as a preliminary test in this matter, for it contains circles irrigated and unirrigated in fair proportion, and the following table will show the result as regards the past year.

TABLE V.—*Rural Circles of Etah District.*

IRRIGATED.				PARTLY IRRIGATED.				UNIRRIGATED.			
Estimated population.	Name of Circle.	Deaths from Fever.	Ratio to 1,000.	Estimated population.	Name of Circle.	Deaths from Fever.	Ratio to 1,000.	Estimated population.	Name of Circle.	Deaths from Fever.	Ratio to 1,000.
35,506	Marehra, ...	745	20·9	27,791	Amanpore,...	635	22·8	36,957	Khasgunj, ...	764	20·6
33,348	Nidowlie, ...	753	22·5	32,523	Sirpoorn, ...	753	23·1	44,163	Soron, ...	1,087	24·6
58,812	Etah, ...	1,203	20·4	41,485	Dhomrie, ...	1,109	26·7	35,155	Sahnwur, ...	794	22·5
48,100	Sukeet, ...	913	18·9					32,311	Putealee, ...	591	18·2
								67,407	Aleegunj, ...	1,425	21·1
								37,501	Khadurgunj, ...	455	12·1
175,766	...	3,614	20·5	101,799	...	2,497	24·5	253,494	...	5,116	20·2

The table does not witness in any very unfavourable degree against canal-irrigation as a cause of unusual death from fever. Irrigated and partly irrigated circles together as against unirrigated show a death ratio of 22·0 to 20·2.

45. In the Meerut District, with its large general ratio, the evidence is, if anything, rather more favourable to irrigation. But here it is necessary to remember that so great a portion of the Meerut District is irrigated as possibly to influence, in respect to such matters as canal-irrigation does influence, the climate of the district in all parts. However, I give the figures, as the subject is of much importance and merits illustration :—

1872.

TABLE VI.—*Rural Circles of the Meerut District.*

IRRIGATED.				UNIRRIGATED.			
Estimated population.	Name of Circle.	Deaths from Fever.	Ratio to 1,000.	Estimated population.	Name of Circle.	Deaths from Fever.	Ratio to 1,000.
8,468	Bysoomba, ...	247	29·2	32,988	Daha, ...	616	18·7
46,980	Mowana, ...	1,110	23·6	27,439	Kurkouda, ...	1,453	52·9
43,255	Dourala, ...	844	19·5	68,965	Haupper, ...	1,952	28·3
67,865	Sirdhana, ...	1,018	15·0	22,967	Ghazeeabad,, ...	835	36·3
33,401	Chuproulee, ...	626	18·7	14,190	Shadera, ...	254	17·8
75,474	Barote, ...	1,512	20·3	6,160	Kummur-ood-deen, ...	103	17·6
43,672	Bagput, ...	558	12·8	15,359	Loonee, ...	401	26·1
33,613	Kekhra, ...	644	19·1				
20,350	Binoulee, ...	392	12·9				
70,123	Janee Bozoorg, ...	3,026	43·1				
30,607	Balainee.	755	24·6				
55,433	Meerut Pergunnah, ...	2,868	53·5				
49,085	Pareechutgurh, ...	1,030	20·9				
30,117	Gurhmooktesur, ...	503	16·7				
14,651	Buxar, ...	621	42·4				
11,285	Poot, ...	278	24·6				
39,628	Begumabad, ...	2,315	58·4				
24,768	Pilkooah, ...	956	38·6				
34,594	Moradnuggur, ...	2,526	73·0				
25,976	Dhoulana, ...	748	28·8				
9,886	Dasna, ...	426	43·1				
779,231	... .	23,003	29·5	188,058	...	5,619	29·8

If this Meerut table is worth anything—and I think it is worth something of belief, for Mortuary Registration is effected with care in the Meerut District—it may be accepted as showing that the great mortality from fever in 1872 occurred in the Meerut, Janee, Begumabad, Kurkouda, Pilkooah, Moradnuggur, Dasna, and Buxar Circles. With the exception of the last, Buxar, a small circle of 31 villages, in the eastern part of the district, all these circles taken together form the centre of the district, from Meerut Pergunnah downwards. Being a tract of country through which the main channel of the Ganges Canal passes and irrigates. This centre of the Meerut District is naturally an ill-drained part, its natural waterways are very shallow, being the commencement of the East Kalee Nuddee, which flows away to the Ganges at Kunouj, while the drainage of the Doab country north of Meerut flows away by the Hindun to the Jumna.

I think it is very likely this especial part of the Meerut District must have been noted for fever disease before the canal was made, and I cannot but suppose the making of the canal with its many rajbuhas has tended to increase the causes of that disease.

46. It may perhaps be well to consider this subject a little further.

The Meerut District is irrigated at different parts by three separate systems. On the west by the Eastern Jumna Canal, in the centre by the Ganges Canal, on the east by the Futtehgurh branch of the Ganges Canal. I arrange the circles under their separate systems of irrigation.

TABLE VII.—*Fever*, 1872.

Irrigated by Eastern Jumna Canal.		Irrigated by Ganges Canal.		Irrigated by Futtehgurh Branch.	
Name of Circle.	Deaths to 1,000.	Name of Circle.	Deaths to 1,000.	Name of Circle.	Deaths to 1,000.
Chuproulee, ...	18·7	Dourala, ...	19·5	Byscomba, ...	29·2
Barote, ...	20·3	Sirdhana, ...	15·0	Mowana, ...	23·6
Binowlee, ...	12·9	Meerut Pergunnah, ...	53·5	Pureechutgurh, ...	20·9
Bagput, ...	12·8	Jance Boozoorg, ...	43·1	Gurhmookhtesur, ...	16·7
Bulainee, ...	24·6	Begumabad, ...	58·4	Buxar, ...	42·4
Kekhra, ...	19·1	Moradnuggur, ...	73·0	Poot, ...	24·6
		Pilkooah, ...	38·6		
		Dasna, ...	43·1		
		Dhoulana, ...	28·8		
Average, ...	18·1	Average, ...	40·4	Average, ...	26·2

The result is extremely unfavourable to the Ganges Canal which irrigates the central portion of the district.

47. With reference to the possible causes of this I think it is probable that irrigation is more sparingly effected from the two smaller canals, because of a less supply of water. I think the eastern side of the district drains more thoroughly in time of great rain to the Ganges, and the western side to the Jumna ; while the central portion of the district, as I have before explained, is very likely to be ill-drained, its excess of rainfall held up in unusual measure by irrigation earthworks, to the great increase of the general dampness which must result from effectual canal irrigation.

I do not think it will serve any good purpose to pursue this subject further, as until the circle map can be printed, it is not possible to illustrate the facts in regard to all irrigated districts without the preparation of elaborate tables which tend to confuse rather than elucidate. I have ventured to give the preceding tables denoting the facts for Etah and Meerut partly to show how valuable the circle map is likely to be as a help to a correct understanding of the locality of unusual mortality.

SMALL-POX.

TABLE VIII.*—*Registered Mortality from Small-Pox in all Districts for the eight years* 1865 *to* 1872.

No.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.
1	Kumaon, ...	...	...	...	...	...	1	...	...
2	Gurhwal, ...	...	...	...	...	...	...	...	1
3	Terai, ...	...	2	3	...	...	...	2	...
4	Bijnour, ...	1	39	45	2	...	5	69	38
5	Moradabad, ...	10	40	60	8	7	25	50	13
6	Bareilly, ...	52	127	43	13	6	19	43	29
7	Shahjehanpore, ...	86	113	11	2	67	20	35	31
8	Budaon, ...	28	20	34	4	5	7	12	13
9	Dehra Doon, ...	..	...	1	...	...	...	...	1
10	Saharunpore, ...	24	103	11	32	11	20	44	53
11	Moozuffernuggur, ...	67	10	23	11	30	43	11	
12	Meerut, ...	72	37	9	9	50	22	13	8
13	Boolundshuhur, ...	57	199	24	13	63	16	4	10
14	Allygurh, ...	79	10	4	19	64	5	7	6
15	Etah, ...	52	1	5	11	35	1	3	3
16	Muttra, ...	100	1	1	10	60	4	3	5
17	Furruckabad, ...	67	4	4	7	39	...	3	1
18	Mynpoorie, ...	24	4	13	9	42	1	1	...
19	Agra, ...	67	1	5	10	78	2	3	4
20	Etawah, ...	13	1	2	2	36	2	3	1
21	Cawnpore, ...	75	3	13	4	63	3	12	2
22	Futtehpore, ...	18	4	7	5	61	...	1	2
23	Jounpore, ...	8	5	13	11	18	5	1	2
24	Humeerpore, ...	30	1	1	13	41	3	8	4
25	Banda, ...	25	4	8	12	70	1	2	3
26	Allahabad, ...	6	6	7	8	14	3	2	3
27	Goruckpore, ...	7	11	25	3	4	2	2	11
28	Bustee, ...	27	11	17	12	4	5	8	33
29	Azimgurh, ...	40	6	5	20	12	18	3	3
30	Ghazeepore, ...	25	9	6	17	12	11	3	2
31	Benares, ...	5	2	4	8	12	2	2	1
32	Mirzapore, ...	23	6	3	8	23	3	3	4
33	Jaloun, ...	2	1	...	2	15	1	1	...
34	Jhansie, ...	8	1	...	1	32	...	1	1
35	Lullutpore, ...	9	5	2	1	10	...	...	3

* The entries of deaths in this table stand for hundreds, thus 34 stands for 3,400.

48. The localities of great prevalence in 1872 are seen to be Bijnour, Bareilly, Shahjehanpore, and Saharunpore, northern Districts of the Province, and Bustee an eastern District. The prevalence of small-pox in the northern Districts has been very marked during the past three years, and points to them as a very appropriate field for the labours of the Vaccination Officers.

Form VII. in the Appendix shows the monthly mortality from this cause, and, as usual, the hot months—April, May, and June—are seen to be the months of excessive mortality from this cause.

Cholera.

Table IX.—*Annual Mortality from Cholera in the North-Western Provinces, for the eight years* 1865 *to* 1872.

Population.	Year.	Deaths from Cholera registered.	Ratio to 1,000 of Population.
29,405,322	1865,	76,322	2·58
"	1866,	8,175	0·27
"	1867,	57,837	1·95
29,538,653	1868,	20,680	0·61
"	1869,	90,770	3·06
"	1870,	13,123	0·44
"	1871,	3,473	0·11
30,854,022	1872,	50,565	1·64

49. From this table it appears that, after two years of comparative freedom from this disease, the people of this Province were again, in 1872, troubled by cholera in an epidemic form.

Table X.*—*Registered mortality from Cholera in all Districts for the eight years* 1865 *to* 1872.

No.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.
1	Kumaon,	...	...	15	...	1	...	...	...
2	Gurhwal,	...	...	4	...	...	...	...	...
3	Terai,	...	...	6	...	...	...	...	4
4	Bijnour,	1	1	8	...	1	...	1	2
5	Moradabad,	10	3	43	1	2	2	2	11
6	Bareilly,	49	4	78	5	9	2	1	15
7	Shahjehanpore,	31	1	78	...	3	...	1	44
8	Budaon,	6	1	8	1	11	1	1	9
9	Dehra Doon,	...	...	9	...	...	...	...	3
10	Saharunpore,	3	1	9	1	2	1	2	14
11	Moozuffernuggur,	1	2	21	2	2	2	1	...
12	Meerut,	9	7	41	3	6	1	1	5
13	Boolundshuhur,	2	1	7	1	2	1	...	4
14	Allygurh,	2	1	11	1	4	1	1	8
15	Etah,	2	1	12	1	2	1	...	3
16	Muttra,	1	1	8	1	11	1	...	4
17	Furruckabad,	18	2	6	1	3	...	...	25
18	Mynpoorie,	6	1	7	1	3	...	...	4
19	Agra,	3	1	15	1	20	1	1	5
20	Etawah,	35	1	1	...	4	...	...	15
21	Cawnpore,	16	2	18	1	28	...	2	16
22	Futtehpore,	29	2	7	1	10	...	...	5
23	Jounpore,	14	3	2	9	29	7	4	83
24	Humeerpore,	88	...	2	...	21	...	...	1
25	Banda,	27	1	25	...	14	1	...	2
26	Allahabad,	42	3	5	6	29	2	2	36
27	Goruckpere,	57	3	50	40	86	27	1	30
28	Bustee,	13	1	51	5	43	50	...	95
29	Azimgurh,	24	3	9	14	88	13	2	26
30	Ghazeepore,	15	11	13	33	108	4	3	6
31	Benares,	16	15	6	12	35	4	7	14
32	Mirzapore,	23	7	4	21	48	9	1	16
33	Jaloun,	102	1	...	...	26	...	...	1
34	Jhansie,	99	...	...	...	18	...	...	...
35	Lullutpore,	7	...	...	...	27	...	...	...

50. The districts are arranged in order from north to south, and the table shows the widespread prevalence of the disease, and how in 1872 it again prevailed in the northern Districts, which since 1867 had been comparatively spared.

* In this table the entries of deaths stand for hundreds.

51. The usual law of seasonal epidemic prevalence, which appears to require that cholera should prevail early in the year in the southern and eastern Districts and gradually spread up to the north, was well marked in 1872.

TABLE XI.—*Deaths from Cholera in* 1872 *by hundreds.*

Number.	District.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October	November.	December.
1	Kumaon,	...	...	...	...	...	...	...	...	...	...	...	...
2	Gurhwal,	...	...	...	...	...	...	...	...	...	...	...	...
3	Terai,	...	...	...	...	...	...	...	...	...	2	1	...
4	Bijnour,	...	...	...	...	...	...	...	...	...	1	...	..
5	Moradabad,	...	...	...	...	...	...	...	1	4	6	...	...
6	Bareilly,	...	...	...	...	...	...	...	1	3	7	3	...
7	Shahjehanpore,	...	...	...	...	...	...	1	13	12	14	3	...
8	Budaon,	...	...	...	...	...	...	...	...	2	6	...	...
9	Dehra Doon,	...	...	...	...	...	...	1	2	...	...	...	...
10	Saharunpore,	...	...	...	...	...	...	...	7	4	1	...	...
11	Meozuffernuggur,	...	...	...	...	1	1	...	...	...	...	...	...
12	Meerut,	...	...	...	...	...	1	...	1	2	...	...	...
13	Boolundshuhur,	...	...	...	...	...	...	...	2	2	...	...	...
14	Allygurh,	...	...	...	...	...	...	...	1	5	1	...	...
15	Etah,	...	...	...	...	...	...	...	2	1	...	...	...
16	Muttra,	...	...	...	...	1	...	1	1	1	...	...	...
17	Furruckabad,	...	...	...	...	...	1	3	13	5	2	...	...
18	Mynpoorie,	...	...	...	...	...	...	1	1	1	...	...	...
19	Agra,	...	...	...	...	...	1	1	1	...	...	...	...
20	Etawah,	...	...	...	...	...	4	5	4	1	...	...	...
21	Cawnpore,	...	...	...	...	4	5	3	3	2	1	...	...
22	Futtehpore,	...	...	...	...	1	2	1	1	1	...	...	...
23	Jounpore,	...	...	11	58	11	1	...	...	...	...	...	...
24	Humeerpore,	...	...	...	...	...	...	...	...	...	...	...	...
25	Banda,	...	...	...	...	...	...	...	...	1	...	...	...
26	Allahabad,	...	...	...	...	...	...	...	...	...	...	...	...
27	Gorruckpore,	...	...	2	19	10	3	...	...	...	1	1	...
28	Bustee,	...	...	1	5	13	7	...	...	1	1	1	1
29	Azimgurh,	...	...	1	27	40	25	2	2	...	1	...	...
30	Ghazeepore,	...	...	...	6	10	5	1	2	...	...	1	...
31	Benares,	...	...	...	...	1	2	1	1	...	...	...	...
32	Mirzapore,	...	...	1	36	4	2	1	1	1	1	...	...
33	Jaloun,	...	...	...	...	...	...	...	...	...	...	...	...
34	Jhansie,	...	...	...	...	...	...	...	...	...	...	...	...
35	Lullutpore,	...	...	...	...	...	...	...	...	...	...	...	...

The table teaches that cholera was epidemic in the southern Districts from March to June; in the Lower Doab from May to September; in the Upper Doab and Rohilkhund from August to November. And it shows that in 1872 the disease was not present as an epidemic, anywhere in the Bundelkhund country, south of the Jumna.

52. Form VI. in the Appendix contains a detailed statement of the deaths from this cause.

I trust that later in the year, I may be able to submit to Government a map showing the course and comparative prevalence of the disease, together with a short history of the epidemic as traceable on the map.

DENGUE FEVER.

53. During the year 1872 many people of this Province suffered from Dengue Fever. I think, so far as the inhabitants of this Province are concerned, it was an altogether new form of disease. It is quite certain that the existing generation knew nothing of it from tradition, or until they saw or experienced its severities. Doubtless a disease partaking of the character of rheumatic scarlatina, when once established here, found much opportunity for prevalence amongst a people, many of whom are, as to constitution, much below par. Certainly, when once attacked, the sufferings of the patient were very great,—greater I think amongst the Natives who lie on hard surfaces, than amongst Europeans who can do much by way of relief for such pains as those of Dengue.

54. The history of this outbreak of disease will be found to lend strength to the belief in the highly contagious nature of the complaint.

Dengue had extensively prevailed in Calcutta during 1871 and the beginning of 1872.

The first recorded case of the disease in this Province occurred on the 4th March at Mirzapore. A river steamer with two flats direct from Calcutta with several cases of Dengue on board anchored at Mirzapore on the 2nd of March. The two Europeans first attacked at Mirzapore had spent several hours on board the steamer. Many coolies of Mirzapore were employed in discharging cargo, some of whom were taken ill with Dengue, and so it was introduced amongst the native community.

At Benares the first case recorded commenced on the 27th April; the man was a Bengalee who arrived by rail from Calcutta on the 25th April.

At Ghazeepore, complaints of the prevalence in the city of a new kind of fever were heard early in August; but cases of Dengue were not seen by the Civil Surgeon until towards the end of August.

At Allahabad, the first case was seen in the person of a passenger who arrived by train from Calcutta on the 9th of May, and was ill with Dengue on arrival.

At Jounpore, the first case was seen on the 12th of July in the person of a Baboo who had had Dengue in Calcutta, returned to Jounpore on the 6th July, and was attacked a second time on the 12th.

At Cawnpore, the first case occurred on the 2nd of July, in the person of a Goods Clerk at the railway station, and the disease was confined for some days afterwards to the people of the railway station.

At Agra, the first cases of the disease are believed to have occurred on or about the 18th July, but there is no evidence on record concerning the origin of the disease.

At Muttra, the first case recorded occurred on the 24th August, and it is probable that the disease was brought by pilgrims from Agra.

At Allygurh, the first case recorded occurred on the 10th August in the person of a student who had been sent to his home in Allygurh from the Agra College where Dengue prevailed.

At Meerut, the two first cases recorded occurred on the 7th August in the persons of members of the Sub-Assistant Surgeon's family who were taken ill 36 hours after a visitor from Calcutta, recovering from Dengue, had left the house.

At Boolundshuhur, a few cases were seen from the 4th October to 7th November. The disease did not prevail as an epidemic anywhere north of Meerut. At Moozuffernuggur, four cases occurred between the 12th and 25th September, and at Saharunpore about 40 cases are believed to have occurred between the 27th August and 22nd November.

From the dates of first commencement we learn,—That commencing in March and April in Mirzapore and Benares, the disease was not established in Allahabad until May, at Cawnpore and Agra until July, at Allygurh and Meerut until August.

55. Studying the record further we find, that with regard to prevalence, the disease was known almost only in certain districts of the Ganges valley, or in some districts having rapid communication by rail with Calcutta. Thus the existence of the disease is denied in Kumaon, Gurhwal, Dehra Doon, Teraie, Bijnour, Moradabad, Shahjehanpore, Budaon, Bareilly, Furruckabad, Mynpoorie, Etah, Etawah, Futtehpore, Humeerpore, Goruckpore, Bustee, Azimgurh, Jaloun, Jhansie, and Lullutpore. In Banda 30 cases in all are believed to have occurred between the 26th October and 28th December.

If to the above list Saharunpore, Moozuffernuggur, and Boolundshuhur be added, the localities of epidemic prevalence will be Mirzapore, Benares, Ghazeepore, Allahabad, Jounpore, Cawnpore, Agra, Muttra, Allygurh, and Meerut,—ten districts in all, concerning which I will now add a few words explanatory of the comparative prevalence of the disease, its character and probable results.

56. *In Mirzapore*—The disease commenced to trouble the people of the city early in March and continued to prevail until the end of September, seven months in all. During that time it is believed that a majority of the people of all ranks, sexes, and ages suffered from the complaint. The work in shell-lac factories was impeded at times

by its general prevalence amongst the labourers. The jail establishment and the prisoners, the City Police, the Dispensary establishment and patients, suffered very generally, and only a few of the European residents escaped from its attack. Enquiries specially instituted with a view to the determination of the area of prevalence have resulted in establishing the opinion that the disease was not known or not complained of anywhere in the district outside a radius of six miles from the city.

Dr. Paske, the Civil Surgeon, who had large experience of the disease describes it as follows:—

The disease commences with the quite sudden and unexpected coming on of pain in the back, forehead and small joints of the hands and toes, soon followed by moderate fever lasting from 12 to 48 hours at most. Rheumatic pains of various joints, muscles, and tendons, remaining for varying periods after the fever has subsided—especially of the small joints of the hands and feet. The characteristic and distressing symptom is the pain—so severe that "break bone fever" is considered a good name for the disease; the pain in the back is so increased by movement and so hard to bear, that the patient often lies motionless as though fixed in a vice for some hours. An eruption more or less distinct, sometimes as vivid as that of scarlatina, appears on the skin as the fever subsides and is followed by desquamation; slight when the eruption has been ill marked, the skin pealing off in flakes from the hands and feet when the eruption had been vivid. The attack resulted in general debility and loss of appetite sometimes prolonged for many days, often pain lingered in the joints for a lengthened period. No case was known to end fatally.

57. *In Benares*—The disease was first seen on the 27th April, and the epidemic continued to about the 6th December. In the interim the disease became so general in its attack that it is believed fully 75 per cent. of the inhabitants of the city suffered from it. During June the prevalence in the city had become well established, and in that month cases were first heard of in the district, and eventually the disease spread over the district, and it is believed that from first to last about 35 per cent. of the population suffered. No case occurred in the Central or District Jail or in the Lunatic Asylum, owing it is believed to the carefully maintained segregation in regard to their inmates. When any member of a family was attacked, as a rule, the disease spread through that family.

Dr. Cockburn describes the disease as commencing with sudden pain in the joints and the appearance of an innitial rash like scarlatina rash; soon the temperature of the blood increases to 105°, the pulse rising to 120°, this condition lasts for no long time and defervescence is complete after 48 hours from the commencement of the attack. A sensation of extreme debility follows, the pains in the joints often recur at intervals and may continue for a month or more. In children, the attack may lead to convulsions. A terminal rash, resembling measles, was often observed between the 4th and 8th day, the temperature of the blood rising at the time of its appearance. The terminal rash is uncertain—fugitive—if severe, it is followed by desquamation. The general health is much affected by a severe attack of Dengue, and strength is restored only after a considerable interval. Two cases of death from Dengue were recorded in Benares, and amongst children, deaths from convulsions, the result of Dengue, were said to have happened.

58. *In Ghazeepore*—The disease was not prevalent until the beginning of August. It is possible that this comparative immunity may have resulted from the imperfect railway communication enjoyed by Ghazeepore. It continued to prevail to the middle of November and spread amongst all classes of the natives in all parts of the city. The European residents of the civil station, excepting the German Missionaries, suffered very little, although the servants of the European residents suffered very generally. The disease did not spread into the district, and was not heard of anywhere much beyond the capital.

Dr. Jameson, the Civil Surgeon describes the disease as a sudden seizure, intense bone-breaking pain, burning fever, headache, utter prostration. Recovery from three to six days in almost all cases. Rash primary and secondary seen in most cases. Considerable tendency to relapse. The disease frequently accompanied by dysentery. As a rule pain or stiffness in the joints remained for some time ; in some instances for two or three months. Five fatal cases were reported as the result of the severe dysenteric symptoms which supervened.

59. *In Allahabad*—The disease commenced on the 9th of May in the railway premises and gradually spread over that quarter. About the same time travellers at the hotels were often attacked. In June cases occurred in the city, the servants of European residents began to be attacked; afterwards the Europeans suffered too. And finally the troops were affected. It prevailed very extensively in the city, railway premises, and the Civil and Military station and bazaars, but nothing was heard of it anywhere much beyond the Allahabad site. Cases occurred even as late as December, and it is probably that the epidemic did not quite cease until quite near the end of the year.

Dr. Jones describes the symptoms in much the same terms as those before quoted, but at greater length, and he has also placed on record his opinion concerning the treatment of the disease. Of all the symptoms he considers the pains in the joints to be the most constant and characteristic, the accompanying fever being often very slight; the eruption in 25 per cent. of the cases absent or quite fugitive. When present most marked in the palms of the hands. In children convulsions and even delirium frequently occurred ; congestion of the throat running on to ulceration, with enlargement of the tonsils and submaxillary glands, was not infrequent. Sometimes the pain assumed the character of sciatica or neuralgia, and then the patients were quite prostrated. The joints of the hands, but most of all the joints of the thumbs, were commonly affected ; also the shoulder, wrist, knee and ankle joints, the latter remaining weak for a long time, and often leading to severe sprains and prolonged lameness. Sleeplessness and loss of taste were common symptoms. Relapses were frequent. The Natives were attacked with the same degree of severity as Europeans. Several children are believed to have died of the disease or its consequences.

After extensive experience Dr. Jones does not believe there is any specific for Dengue. Every remedy that has been suggested was tried with indifferent success, and even belladonna gave little satisfaction. The injection of morphia over the seat of localized pain, as in neuralgia, was found most useful. Effusion into the joints was seen in many cases, but the remedies found so useful for this condition in rheumatism seemed to have no beneficial effect in the particular affections of Dengue. Quinine, useful to prevent relapses, does not control the fever or arrest the complaint. Hot water and vapour bottles relieve the pains. The application of ice is invaluable for the accompanying headache. But the disease, like all the exanthems will run its course unchecked by remedies which do good only inasmuch as they help to the performance of the natural functions, or the relief of the more urgent symptoms.

60. *In Jounpore*—The epidemic commenced about the 12th of July. By the second week of August the disease had spread all over the city and did not subside until the end of October. About three-fourths of the people of the city are believed to have suffered. Only two Europeans were attacked. No case occurred in the jail. The villages of the district were but little affected. No person died of the disease.

The natives called the fever *bukhar khas*, having no previous knowledge of such a complaint.

Dr. Fitzgerald describes the symptoms in the same terms as before given. In the cases he saw the initial and terminal rash were noticed, the joints though painful were never stiff or swollen. Pain in one or both eyeballs was occasionally a distressing symptom. In some cases the pain in the joints persisted for months, the patients becoming wan and emaciated so as to be pictures of misery.

Dr. Fitzgerald believes the disease cannot be hindered in its course with advantage. He thinks the great object in treatment should be to mitigate the bodily suffering of the patient, and for this purpose the administration of the extract of belladonna in half grain doses, three times a day, was very beneficial. For the pains of the chronic stage he recommends the wearing of flannel next the skin, and the use of a liniment composed of one ounce of turpentine and three ounces of *linimentum opii*.

61. *In Cawnpore*—The disease commenced on the 2nd of July at the railway station, and during nearly all that month it appears to have confined its attack to the residents of the railway premises, or to persons employed at the station. Towards the end of July and beginning of August cases occurred in the city. The disease spread quickly and prevailed as an epidemic throughout August and great part of September; occasional cases occurred even in November. The prisoners in jail suffered very little; amongst the Police many cases occurred; it was very general amongst the military and amongst the railway community, but most general and most severe amongst the native residents of the city. Scarcely a house escaped, and as a rule five-sixths of the inmates suffered. It is not on record that the inhabitants of the district generally suffered to any extent, but cases of the disease are known to have occurred amongst the Police District Stations.

Dr. Condon describes the disease in the terms before given, and he notices particularly the extraordinary debility which succeeded to the short fever stage, which he says leaves the patient weak as after a month's illness. At Cawnpore the fugitive and uncertain character of the rash was very marked. It is described as being sometimes like scarlet fever rash, sometimes like measles, sometimes like various skin diseases, sometimes it was altogether absent. The persistent character of the after pains was a marked feature at Cawnpore, so that all who had the disease severely were more or less crippled by them for a long time. One death was recorded from Dengue at Cawnpore, the result of a second attack coming on soon after child-birth.

62. *In Agra*—The outbreak commenced on the 18th July, prevailing at first amongst the boarders of the Government College, 80 in number, hardly any of whom escaped. From the neighbourhood of the College it spread into the city, where it became general, sparing none, and causing a great amount of distress, owing to the difficulty the people had in rendering each other assistance when all the members of a family were ill. The prevalence continued until the end of October.

It is not known to what extent the disease prevailed in the district, but cases were recorded at Ferozabad on the east side, and Futtehpore Seekree on the west side of the district.

No deaths occurred amongst the cases treated by the medical officers, but in the four months July, August, September, and October the monthly average of deaths recorded in the city was, 820, whereas the monthly average is generally about 300. Of the 3,280 deaths recorded in the months mentioned, 1,712 were deaths from fever of children less than six years of age, and it is likely that Dengue may have accounted for many of those deaths.

At Agra the disease is described in the usual terms. Dysentery as a result, or complication, of the disease was often seen.

63. *In Muttra*—The disease was first seen on the 24th August, and about the same time it was known to prevail at Bindrabun, a large town five miles distant from Muttra. It spread with great rapidity through the city, the prevalence was pretty general, whole families being simultaneously laid low by it. The European regiment suffered considerably; about half the inhabitants of the Civil Station were affected. No case occurred in the Jail. The epidemic continued until the end of November.

The disease prevailed to a considerable extent amongst the people of the villages near the city, but nothing is known of its prevalence in more remote parts of the district.

Attacks of dysentery and bronchitis as sequellæ of Dengue were very often observed; and in patients who had been subject to ague attacks, it was noticed that after Dengue the old ague returned, often in a most violent form. No deaths are recorded from this cause at Muttra.

64. *In Allygurh*—The epidemic commenced on the 10th of August. It quickly spread through the town, and very few persons escaped its attack. It prevailed to the end of October. The symptoms of the disease are described in the usual terms. Spitting of blood and bleeding from the nose were noticed in some cases. Nothing is recorded as to the prevalence of the disease in the district. Five cases occurred amongst the prisoners in jail.

65. *In Meerut*—The disease was first seen on the 7th of August, and by the 15th of August it had become epidemic and so continued to the end of September. During all October cases continued to occur amongst the native residents, and even in November many soldiers of the regiment just arrived from Dugshaie were attacked. The great majority of the inhabitants of the City and of the Cantonment Bazaars suffered from it, and very few of the Europeon residents escaped. No cases occurred in either of the two prisons. This is believed to have resulted from the fact that as a precaution against cholera—prevalent at the same time as Dengue—a very careful quarantine was maintained in regard to the prisoners and prisons establishment. The inhabitants of the district generally suffered to some extent, but not in the same general way as the people of the city.

Dr. Moir is not inclined to attach much importance to chiretta or quinine as prophylactics; for at Meerut, persons who had taken either one of these medicines every morning for months were attacked by Dengue and suffered like those who had taken neither. He thinks that Dengue is highly infectious, especially where heat and moisture are combined in the atmosphere.

Cold appears to neutralize the power of Dengue poison, for the disease though introduced into hill stations did not spread there.

The disease is described in the usual terms, and it is added that the symphatic system is much affected in Dengue—the glands of the neck, behind the ears, in the axilla and in the groins, becoming enlarged and tender.

Only one death was recorded at Meerut from Dengue, in the case of a child eight months old, who died in convulsions.

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66. The preceding accounts make, together, a fair record of the extent and severity of this unexpected epidemic and may give to any person who cares to enquire into the subject a good idea of the suffering it produced.

I believe this suffering was intense as regards the native population. That living as natives generally do, it would be difficult to conceive of a disease more hard for them to bear.

But I think the accounts do not give a correct idea of the mortality which resulted from this cause, which I believe to have been pretty considerable. In the Agra record something of this is shadowed. In the vernacular press the fact that many people died of this new complaint was strongly insisted on. And there can be no doubt that the mortality amongst children was increased by this cause.

Unfortunately the mortuary records cannot help us to determine the exact mortality of any one of the causes of death which the Natives call "fever." Anything of detail so fine as that is quite impossible of realization, and the endeavour would only end in vexatious failure. The natives called this complaint the "new fever," and if deaths occurred from it, they were registered under the head of fever.

To deepen the shadow of the Agra record I may mention that the deaths registered from fever in the town circles affected when Dengue prevailed were unusually numerous; and especially so at Meerut, where in August, September, and October, 20,470 deaths were registered from fever, of which 8,441 were deaths of children less than six years of age.

CHAPTER IV.

INSPECTIONS OF SANITARY COMMISSIONER.

67. The first portion of the past marching season was taken up by the duty I was called upon to perform, of accompanying the Sanitary Commissioner with the Government of India to all the principal Military Stations in this Province and Oudh, with a view to render such aid as might be possible towards the elucidation of the facts concerning the prevalence of cholera disease during the year 1872. I think many facts of considerable interest and importance in regard to the peculiarities of that outbreak; the value, or otherwise, of quarantine; the contagious or non-contagious nature of the disease; the apparently best method of prevention; the question of the spread of the complaint in water; and other facts illustrating this important subject, were recorded during this long journey of enquiry.

68. The result will be, I know, the appearance of a report of no common interest from the pen of the Sanitary Commissioner with the Government of India.

69. The journey completed at Benares, it became necessary for me to go to Roorkee alone to record the facts of the cholera outbreak there. The result was that I was not able to settle down to my usual work of inspection until the beginning of 1873.

70. At the commencement of the season it had been determined that I should inspect and report upon the sanitary state of the towns of the Meerut Division—fifty in number in all. That being now impossible, I determined to inspect the towns of the Meerut, Boolundshuhur, and Allygurh Districts, as I had already seen, and in some measure reported, concerning the towns of the Saharunpore, Moozuffernuggur, and Debra Doon Districts, which, with the three first mentioned, make up the Meerut Division.

THE MEERUT DIVISION.

71. It happens that by much marching in the country which makes up the Meerut Division, I am better acquainted with it and its people than, perhaps, with any other part of this province.

72. Its boundaries are easy to describe, for it lies between the Ganges and the Jumna, where its six districts, of fairly equal size, form, one above the other, the upper portion of the Doab. The Himalayahs bound it to the north, the districts of Muttra and Etah to the south; and so it is a remarkably compact division of British territory throughout its length and breadth. A well peopled, thoroughly fertile, carefully governed, territory, for which I think more has been done by way of improvement and for the advancement of its people's interest and well-being than has been accomplished for any other part of the province. It is essentially the North-West of these provinces, and as such, possesses naturally the best climate of any part of them. It is a long and narrow country, stretching its length from south to north fully 240 miles, namely, from 27° 30′ even to 31° of north latitude, while its average breadth is only 50 miles, lying mostly within the 77th degree of east longitude, but curving at both ends into the 78th.

73. About its centre the great city of Delhi touches its western border on the further side of the Jumna, and I think of all parts of this province, that now called the Meerut Division was most esteemed and cared for by the great Mahomedan dynasty to which the British Government has succeeded. There the Mahomedans built fine brick towns; there they proselytized most vigorously and successfully; Mahomedans became the principal landlords; many fine mosques were built. The *azan* sounded over all the land. And even in Gurhmooktesur itself, with its many Gunga temples, the conch and bell of the Hindoos had to be gently sounded.

Much in proof of this Mahomedan preponderance and energy may be seen everywhere now, but especially in the towns of this division, which are more numerous and better built than the towns of any other division; and even a canal, for irrigation purposes, of considerable length was constructed in those days through part of this favoured land.

74. The evidences of the old prosperity and comparative civilization and improvement are as nothing, however, to evidences of recent improvement, the result of British administration; and, indeed, this Doab seems to be marked out by nature as a land which shall be favoured of men, as inviting improvement and promising adequate return. Its land is in greatest part a plain of softest loam, raised to sandy hillocks or low ridges only at places along the borders, which mark the ancient limits of the rivers bounding it one on each side.

But its northern district of Dehra Doon, cut off from the rest by a range of low mountains, the Sewaliks, is a hill-locked valley, beautiful with verdure throughout the year; the Himalayahs rising in great grandeur to the north, the Sewaliks, lower but very picturesque, bounding the southern view. And, indeed, this district gathers within its limits a fringe of the Himalayahs themselves, on which the famous hill station of Mussoorie stands, and its north-western corner stretches up to embrace the really extensive mountainous country of Jounsar, fully 30 miles into the heart of the mountains, even to the home of the Deodar forests and perpetual snows. The new hill station of Chuckratta is in the midst of this region.

Much of the Dehra valley is yet barren, but willing streams have been lead over the land in some places to its great improvement by irrigation. The tea plant flourishes, the land being about 2,000 feet above the sea; hedges of rose trees and myrtle may be seen in the neighbourhood of habitations. The mean average temperature for the year 1872 was 71° 3′, the rainfall nearly 94 inches. A considerable number of European settlers have made a home in this valley of semi-tropical climate. Nothing of serious inconvenience results from the great rainfall; the centre of the valley is its highest part; its ends are bounded by the Ganges and Jumna; the Sooswa river runs eastward through the land to the former, the Asun westward to the latter, and so the rainfall goes quickly away to the great rivers first mentioned and in no part can the valley be counted a country of swamp. The district has been placed in communication with the country southwards, over the Sewaliks, by means of two very admirable roadways of great width and easy gradient, which approach to triumphs of engineering skill. The land is being opened out by roadways; the population has increased from 102,831 in 1865 to 116,981 in 1872, and I think it is reasonable to expect that the 67,000 culturable, but not cultivated, acres, and the 498,000 barren acres of land existing in this district, out of a total area of 653,271 acres, may in some measure be changed to fertile, if not food-producing, land, within a fair period of time.

75. I have described the Ganges and Jumna as bounding the Dehra District; the Ganges to the east, the Jumna to the west, and these fine rivers come out past the Sewaliks as broad streams of clear rushing water of unusual sweetness and purity, abounding with fish, as do all the streams of Dehra Doon. And so it happens that the land of the Doab below is admirably placed for purposes of artificial irrigation by means of canals. The slope of the land from north to south, afterwards turning eastward, is gradual yet sufficient, indeed rather in excess of the requirement, as the many falls on the canals testify.

From north to south and eastward the slope may be easily gathered by any one acquainted with the geography of the country by a perusal of the following figures:—

Roorkee is 880 feet above the sea, Meerut 739 feet, Agra 551 feet, Futtehgurh 503 feet, Allahabad 289 feet.

76. The small rivers or natural drainage channels of the land run in its length with the exception of the Solanie, which gathers rainfall from the outer face of the Sewaliks to carry it eastward to the Ganges, and the Nogong, which fulfils the same office west-

ward towards the Jumna. The drainage of the Sewaliks in great measure disposed of, in the upper portion of the Saharunpore district another system of drainage commences in the Hindun, which rising from the middle of the Sewaliks, flows south through the midst of the Doab, with a gradual tendency westward, until it falls into the Jumna, about 16 miles below Delhi,—A course in all of about 120 miles. It receives the Khrishnee and West Kalee Nuddees, which rise in the midst of the Saharunpore District, and pursue a southern course of between 50 and 60 miles before they fall into the Hindun. And so it happens that the upper part of the Doab is divided into four minor Doabs: first, that between the Jumna and the Khrishnee; second, between the Khrishnee and the Hindun; third, between the Hindun and the West Kalee; and fourth, between the West Kalee and the Ganges.

About Meerut—where the course of the Hindun commences to go decidedly westward—again a new system of drainage commences by three or four branches of shallow waterway, which coalesce to form the East Kalee Nuddee. This nuddee flows through the Doab about midway between the Hindun and the Ganges, thus dividing the Doab into three, but after the Hindun falls into the Jumna, the East Kalee bending westward pursues its course alone down the centre of the Doab, dividing it into two minor doabs. Again, in the neighbourhood of Allygurh, it bends eastward, and so pursues its course of fully 200 miles to fall into the Ganges at Kunouj. Where it bends eastward, the drainage is immediately taken up by the Seyngur Nuddee, which rises below Allygurh; the Eesun, which rises at Secundra Rao; and the Rhind which rises in the same neighbourhood, but a little westward.

The Seyngur falls into the Jumna about 16 miles below Calpee, having a course of 160 miles. The Eesun falls into the Ganges, near Bilhour, having a course of 120 miles. The Rhind falls into the Jumna, about 20 miles below Humeerpore, having a course of 190 miles. And so it happens that the lower Doab is divided into four, and sometimes five, minor doabs.

The total result is a country of long and narrow doabs, extremely favourable, I should suppose, for irrigation purposes, and very fairly furnished with natural drainage ways for the removal of excessive moisture.

77. When once this character of the country is thoroughly understood, there is no difficulty at all in comprehending both the measure and method of the irrigation system which has been applied to it, and which, I think, for extent and perfection, has nothing to equal it in the world.

The water of both the Jumna and the Ganges, where they come out beyond the Sewaliks, has been arrested by dams, and turned into new channels, which lead it down through the midst of the Doab.

78. The water of the Jumna passes into the Eastern Jumna Canal, which consists of a single channel, 130 miles in length, passing down the Jumna and Khrishnee minor doab to re-enter the Jumna opposite Delhi. From it the minor doab through which it passes, and the minor doab between the Khrishnee and Hindun, are irrigated. For the Canal takes little note of the Khrishnee—stretching three, if not four, rajbuhas or distribution channels across its bed to reach the adjoining doab. But that a considerable width of country adjoining the Jumna, too low-lying for irrigation purposes, escapes, it might be said that all the land between the Jumna and the Hindun is irrigated from the Eastern Jumna Canal.

79. The water of the Ganges passes into the Ganges Canal, which, in regard to importance in all respects, is to the Eastern Jumna Canal as a man is to a child. Every one knows how the Ganges Canal was carried across the eastern-flowing Solanee by the famous aqueduct. Indeed, the first 20 miles of this canal consists of a series of engineering triumphs, streams being successfully carried under it, over it, and through it, as was most desirable.

Once across the drainage of the Sewaliks, its course southwards is easy through the West Kalee and Ganges Doab, all of which it waters. Arrived at the country

in which the East Kalee Nuddee rises, it sends off a great branch to pass down the East Kalee and Ganges Doab, itself passing on through the Hindun and East Kalee Doab. Arrived at the country in which the Rhind and Eesun rise, it splits into two, one branch to go down the Rhind and Eesun Doab, and end in the Ganges at Cawnpore; the other to go down the Rhind and Seyngur Doab, to end in the Jumna above Humeerpore. And so from Allygurh downwards, it follows that as yet only the centre of the Doab, or that part of it contained between the Seyngur and the Eesun, is watered, the Rhind flowing in the midst of the watered territory.

I say as yet, because the branch described above as being given off where the East Kalee rises, to go down between it and the Ganges—and called Futtehgurh Branch—has, for want of water, only been able to accomplish half its purpose, suddenly stopping at Anoopshuhur, about half way to Futtehgurh.

80. But fourteen miles below Anoopshuhur, at Jyrampoor, the Ganges is being tapped a second time for the supply of a new Canal—the Lower Ganges Canal—by which I have no doubt in time the East Kalee and Ganges Doab will be watered down to Furruckabad. Indeed, judging by the amount of water in the Ganges at Jyrampoor in the cold season, and the evident intention to throw it all if necessary into the new Canal, I see no reason why it should not be carried, after the Solanee plan, across the East Kalee and Eesun Nuddees into the Rhind and Eesun Doab, and so be continued even down to Allahabad. If that is to be effected, I think the result will be that the Ganges and Jumna Doab will become a canal-irrigated country from end to end wherever canal water can be distributed. For such parts in the Upper Doab as now escape may possibly, by increased supply of water below, be brought under irrigation by means of water economized above.

For example, the Boolundshuhur Branch, which comes off at the southern border of the Meerut District—and is to the Jumna side of the Doab what the Futtehgurh Branch is to the Ganges side, and should water all the Doab between the Jumna and Seyngur—also now suddenly, stops, with its purpose half accomplished. And the Coel Branch halts even at the commencement. When everything which appears to be contemplated with reference to this matter shall have been accomplished, I think there will remain only one considerable tract of country not watered by the canal, that is the Doab between the Hindun and West Kalee Nuddees in the northern part of the Doab, for there the land is higher than the general level; but I should not be surprised to hear that the engineers had overcome this difficulty and then the last bit of dry land will have disappeared.

81. I have long desired to place a few words on record concerning this Ganges Canal; for, like much else in this great country, although it is well known to exist, I think few people realize its extraordinary magnificence as a work of art. The combined length of its main channel and branches is about 674 miles, crossed by 191 bridges, the majority of which are of three arches of sufficient span to permit the largest barge to pass through, and all of which are of quite handsome design, and most durably built. As a rule, wherever a bridge exists, there also are wide flights of steps on each side of it leading down to platforms at the water's edge, and hardly a traveller passes, of the poorer class, but goes down to the water to wash his feet or to drink, for I need scarcely say the water, come straight from the Ganges, is very sweet.

Having now been made more than 20 years, the time has sufficed to permit of the clothing of its banks for miles on end—indeed, almost universally—with a thick set fringe of trees, and I think I know nothing more pleasing in this, for many reasons, sad land, than the sight of the wide tract of water moving amidst the green, or than the sound it makes as it moves.

To call the main channel a canal is to give it a poor name. It is in reality an artificial river, from 30 to 50 yards wide, and during the cold season neither more nor less than the Ganges at Hurdwar. Kept straight truly, but made so pleasant with its borders, so full of importance with its purpose.

Its rajbuhas, or distribution channels, the combined length of which must, I think, be between two and three thousand miles, are in like manner always pleasant, the pathways along them often shaded by trees, and I count it a fortunate circumstance when my line of march lies along any one of them. Always there is a sense of freshness and life about the running water. Hardly ever anything of stagnation or rank vegetation is seen in connection with the channels, great or small. Only where branches are coming to an end, and water is scarce, something of this may be seen. And in some instances the escapes—which are pretty numerous and sometimes deeply cut—contain stagnant water, and have become choked with grass or reeds.

82. It may be said roughly that, of about 5,000 cubic feet of water per second which pass into the Ganges Canal at Hurdwar, about 1,000 pass out again by tails and escapes to the Ganges and Jumna. This is the result when the demand for water is steady, say, for the four months when there is very little or no rainfall, so that in those months about 4,000 cubic feet a second must disappear in the land, in the atmosphere, and in the vegetation. In the remaining eight months the cubic feet expended are less no doubt, but the total for the year—I think about 2,500 cubic feet a second—makes a very large volume of water indeed, nearly all of which used to go out to the Bay of Bengal, but now disappears in the Doab.

I suppose it cannot be doubtful that an increase of moisture, such as this indicates, must result in slowly bringing about a change of climate in the region influenced. And besides it happens unfortunately that the supply of drinking water throughout that region is taken universally from wells into which the water of irrigation find a way very quickly, changing its nature very considerably. This, I believe, is a cause of great trouble to the people.

And the Engineers, too—naturally very earnest in the matter of perfect construction on the most efficient principle—have accomplished their design, so that the irrigation shall be "by flow" as a quite general rule, which necessitates the carrying of the distribution channels at some height above the general level. The result has been the creation of a quite extraordinary length of earth-works passing in many directions across the country, hindering the speedy outflow of excessive rainfall. In many places this is a cause of serious tribulation to those affected.

83. The natural drainage channels of the country, many of which I have already named, have of course participated in a more than average measure from the increase of moisture entered into the land. Their general character is that of a remarkable wide bed of low-lying cultivated surface, with a trickling stream of no great width meandering through the centre. Now, in many places, moisture has invaded the bed, hindering cultivation. And quite extensive surfaces of the country, which always partook of the nature of swamp, have had that nature intensified and extended.

84. More important than all, I believe the spring level of the subsoil water of the irrigated region generally has been raised for many feet, and will, I should suppose, continue to rise gradually. This is very noticeable in places naturally low-lying, where now it is customary for the inhabitants to dip their water from the wells in the rainy season, while formerly several feet in length of rope was required to draw the water at all times of the year.

85. I mention these things to show that beautiful as the canal is in itself—great and very perfect as a work of improvement—it may not in its results be an altogether unmixed good to the people immediately concerned.

86. On the other hand, in regard to the increased wealth of the country influenced—shown by the rise in the value of its land, the greater power given to it of producing more abundantly and with greater certainty crops of corn and sugar-cane, indigo, and cotton, and rice—there can be no doubt of the good effected. For years past it has fallen to my lot to have to march at some time or other of the year amidst these crops, with ever increasing wonder at their growth and thick up-standing, the

promise of the vigorous spring-time stem, in no way disappointing the expectations of the harvest time, when the plants are ready to fall down upon the ground with weight of seed; the sugar-canes so heavy with juice, they have sometimes to be tied together in bundles for the mutual support of their tottering stems. And I should suppose there is nothing of exaggeration in the statement that a field irrigated from the Canal will produce quite one-third more of food for man and beast (corn and bhoosa together) than a neighbouring field not so irrigated, and this in the best land neighbouring a village.

87. But the good of the canal is best seen in land outside the home farm, which never received manure, and where, if no canal water is available, the crops are, as a rule, represented by thinly scattered blades hardly worthy the name. By the help of canal water much land of this neglected kind has been brought into the same high state of cultivation as the home farm, and I notice that the manuring of these outlying lands is now beginning to receive attention. Taking the Province as a whole, the total of this little utilized land must be very great in quantity. For, as a rule, while the crops about the villages, nurtured with manure and watered from wells, present an appearance of which the cultivator may well be proud, there is a wide region on all sides beyond—the land not a whit less good—from which the cultivators appear satisfied to gather the smallest outturn, even in favourable years. In years of failing, or irregular rainfall, they gather nothing from it.

88. In the Doab, with the oncoming of an almost general distribution of canal water, I see nothing to prevent a gradual extension of high farming, which will make it as a whole the most valuable possession of British India. Indeed, I am not at all sure it has not already arrived at that pre-eminent position. But the question of a comprehensive and efficient drainage of the land must on no account be overlooked.

89. Besides this great advantage of favourable position for irrigation purposes, the Doab possesses another advantage in being of all parts of the province that most noted for deposits of kunker. A nodular form of limestone, which underlies the surface in many places at a depth of from two to four feet, generally in thin layers, but sometimes, and notably in the Boolundshuhur and Allygurh Districts, in layers thick enough to permit of its being dug out in blocks very suitable for building purposes. But wherever found, it is easily and cheaply dug out in small pieces from the soil in which it lies, and in that form is suitable for road-making. For, with a sufficient admixture of water, it may be consolidated with rammers to an uniform surface of very considerable durability, providing in its white smooth surface, I think, for a light traffic, the best roadway in the world, for to the good qualities described it adds admirable foot-hold, and permits little noise of traffic.

The result of this fortunate possession, so well scattered, is that the Doab from end to end, and from side to side in many places, is furnished with a public road-way of extraordinary perfection. Many of these roads are lined with trees on both sides. All are made on the best principles of level surface, every water-way bridged. All combine wide earth work on each side, making the best surface for the very heavy traffic accomplished by bullock power; though, indeed, as a general rule the bullocks too with their heavy cart-loads go down the centre kunker-way.

90. No existing map gives an adequate record of these admirable ways of communication, for many of them have come into existence since the last maps were made; and especially those which have been designed as feeders to the railroad, to be mentioned hereafter.

Amongst these roads the Grand Trunk Road merits mention as the first great work of improvement of modern times in this now favoured region. From it, apparently, the seed of example fell over the land, for on its plan, though not of its width exactly, have the new roads grown up, so that now it is quite truthful to say that the Doab is a country of great trunk roads.

91. It appears then that the main ways of traffic merit much praise. But to gain a correct idea of what the plentiful possession of kunker will permit in the way of road-making, it is necessary to visit the towns and stations which dot the land.

Something of this will appear further on in this report, when I come to write of the towns inspected during the past season; but this condition of admirably made public thoroughfares may be seen in every town of importance in the land. From Allahabad in the east—chiefest and best perhaps in this respect—to Saharunpore in the west, all are noteworthy for a net-work of roadways in and around them such as for goodness and extent no other part of the province can vie with.

92. For more than ten years now the Doab has benefitted by railway communication from Allahabad to the lower part of the Meerut District; and for more than four years, from thence upwards to Saharunpore. If there is any country in the world which should give an adequate return for a benefit of this kind, it is the Doab, and yet I think the result of more than ten years' experience is that the hopes in this respect have not been realized. Although the returns have been quite sufficient for all practical purposes, and it may safely be said that the railway pays its way, and is a success in the Doab, yet this is a poor way of looking at a subject of so much importance. The question is, has it—passing through a land in which the people are essentially travellers by nature—a land in which produce is piled upon the threshing-floors or gathered into houses out of sight, in a way only to be understood by those who have witnessed it—served such purpose of civilization and improvement as it might have served?

93. I think it has not, and I believe the reason of this comparative failure is that the railroad, instead of being brought as close home as possible to the people, has in effect required that the people should come to it. I sometimes think those who planned the road had an idea that in course of time new towns would grow up about their rural stations, now as silent and deserted as on the day of their completion. Indeed, I have heard it asserted that something of that kind has happened in the neighbourhood of the Hattrass Road station. But the truth is, that about five or six mud huts have grown up there, as much for the accommodation of the many pilgrims who pass from Muttra to Soron on the adjoining trunk road, as for the travellers by rail. Indeed, it is quite impossible that the towns can ever come to the rail, for their position has been fixed in accordance with the wants of the people of the surrounding lands, who for ages have taken their produce, have purchased their supplies, have received their advances for the purchase of seed from those towns. They are the centres of business, were so long before any roads were made, and will so continue without reference to the roadways, be they never so good.

I think if in making the railway it had been laid down as a first principle that every station, where possible within reasonable limits of distance, should closely serve a pergunnah town—by closely serve, I mean stand quite within the limits of the out-skirts of the town near to the places of business—if so arranged, I think the railway, with its startling peculiarities as a means of communication, would by this time have been brought more home to the people, have been more understood and frequented. As it is, in all the distance from Allahabad to Delhi, with a total of 36 stations, not more than 7—taking Agra into the account, although it hardly deserves it—can be said to accommodate a town, as a railway expecting to prosper and to serve its full purpose ought to accommodate it. So that casual visitors from foreign lands, now pretty numerous—having passed through the land—bear away a remembrance of it as a wide tree-scattered plain, brown or green, in accordance with the season; of its people as here and there an almost naked cow-herd leaning on a stick; of its many minor railway stations, as quiet resting places for watering the engine,—places where, even now, the kunker-laid platforms have not worn smooth.

Whereas, I believe it would have been possible to have so arranged matters that the traveller might have added to his experience the remembrance of a fertile plain, thickly studded with populous towns; where well-dressed people congregate, and

where the work of improvement, for which this Government exists, may be seen best to prosper ; where business centres, and bazaars abound ; and where in all probability the stations—while adding to the local attractions—would have seemed instinct with life.

94. However, it has not been done, and now I suppose never can be. The towns near to the line will have to rest satisfied with giving their names to the stations, as the railway authorities will it, so, although the people, who never deceive themselves unnecessarily, give the stations the names of the village lands in which they stand. The only available remedy seems to be to endeavour to make the existing line as approachable, its method of working as acceptable as may be to the people of the country, especially at the stations which properly serve large towns, and where the business of the line is really very considerable—at Allahabad, at Cawnpore, at Allygurh, for example. It has fallen to my lot to have to talk very often on this subject with many people in towns, in villages, and on the road. I have travelled much by railway, and have had altogether a very considerable opportunity for arriving at a correct view of the native opinion concerning railway travelling, as now managed, and I think it is intensely disliked.

I think an altogether too rigid imitation of the European method has been exacted, which no lapse of time will ever make acceptable to an Indian people. From time immemorial travellers in this tropical climate have received a certain amount of consideration, have looked for and received comfort and protection, so that the worry of travel, no light thing here, might be lessened. And I think something of this consideration should characterize the arrangements of railway travelling, which, as now conducted, are full of trouble and worry for a native of the poorer class.

95. With regard to accommodation. I think to every station a commodious seraie, being part of the station property, should be attached, so that a passenger coming early or late, or being unwell, may find a resting place. A few of the seraie rooms might be let as shops, paying a rent sufficient to cover the interest on the sum expended on the building and repairs of the seraie, but no travellers should have to pay anything for his accommodation.

With regard to the purchase of tickets. I think an office, being an open room, should be established in the seraie where tickets should be sold at all hours, excepting the quarter of an hour before the departure of a train.

As a help to the prevention of overcharge, I would charge so much per stage, counting the stations as stages or chowkees. It is the old fashioned and thoroughly understood method of charge, and I don't believe a native will care one iota whether the stage is ten miles long or thirteen miles long. But I think he cares very much to know exactly how much he will have to pay before he leaves his home, and, as a rule, he cannot know this so long as the charge is counted by miles. Charged by chowkees—I think a very general knowledge of the exact amount to be paid for any journey will quickly spring up, and the power of overcharge, of which several instances have come to my knowledge, will be overthrown.

96. The existing method of selling tickets is to the native mind vexatious in the extreme. As a general rule a native passenger arrives at his station of departure a long time before the train starts, and in days of many passengers, a considerable crowd of people assemble about the ticket office, which is not opened until I think within half an hour of the starting of the train.

The result when it does open is that from, few natives knowing exactly what they have to pay, the tickets are served out slowly ; there is much trouble about change. Sometimes (I have witnessed it) a man, after arriving with much difficulty at the hole of payment, and putting down a rupee, is told his fare being a few annas, to take it away, get it changed, and bring the right sum. The ticket-seller is often hindered at his business by the demands of the more important class of passengers.

The upshot of all this is that, unable to purchase a ticket in time, the passenger by no means unfrequently loses his train. I have talked with men who have been two

whole days at a station delayed from this cause, and it is a matter of quite common occurrence to see passengers, men, women, and children, hurrying distractedly along the platform, in search of a place at the moment of starting, who have in the majority of instances been waiting patiently for hours at the station. Especially men burdened with the care of women and children are to be pitied in this struggle for payment and place. And I believe many—who would willingly, as regards the amount to be paid, travel with their wives and children by rail, on pilgrimages, on visits, or on changing their place of residence—cling still to the old habit of packing all into a bullock cart for the journey to be undertaken. So much is the Railway ordeal dreaded.

97. Between Allahabad and Delhi the existing charge averages 2 annas 10½ pies per station. I believe, with an improved management, and a reduction of the charge to 2½ annas per station, the result would be undoubted success financially. If ever it can be reduced to a round sum of 2 annas—equal to a farthing a mile—I believe the Railway will attract passengers in numbers quite beyond anything as yet expected. For a low rate of that scale, easily calculated, will make riding very hard to resist by the now extraordinary number of walkers to be found journeying in the neighbourhood of the line.

I confess, however, that I cannot know whether it is as profitable to the railway management to carry 2,000 persons one stage for Rs. 250, as to carry 1,000 for Rs. 180. But if it is, I think the combination of increased comfort, easily calculated fares, and decreased charge, would result at least in doubling the number of passengers within a reasonable period of time, and then the 2 annas rate might come into force to the great advantage of all concerned.

98. Although I believe th at it is better, from a sanitary point of view, that a man should be carried on a journey than that he should walk, and although I think of the railway as the greatest aid to improvement generally in the country, and therefore would have it much frequented, yet what I plead for especially is an increase of comfort and consideration for such native passengers as are now drawn to it, who often, I believe, suffer an amount of trouble and anxiety pre judicial to health.

I think the doors of the third class carri ages should be made wider and the seats broader, so that a native, if he pleases, may leave his shoes on the floor, and sit with his feet drawn under hi m on the seat.

I am strongly of opinion that every third class carriage should have a hole in the floor of small dimensions, closed by a trap or sliding door, for the convenience of travellers who may require to answer the calls of nature unexpectedly. The happening of sudden uncontrollable diarrhœa is at certain seasons of the year a by no means uncommon occurrence amongst the people of this country, and I have seen a boy attacked in this way helped by other passengers down to the lower step of the carriage, the train being at full speed. I think if those who have the power to remedy this state of things could have seen the painful anxiety depicted on the boy's face as he was handed down, the *abandon* with which, at the risk of his life, he unloosed his dhotie with both hands,—sitting on the step as a bird on a perch—and his appearance of happiness when he was pulled into the carriage again, the remedy would not be long in coming.

I think women and children travelling by train should receive a great amount of consideration. A woman's carriage should form part of every train, and as no native women ever willingly sits with her legs hanging down, the high seats now in vogue are quite unnecessary. The women's carriage may be made low, the seat a few inches from the floor, but of fair width. Its windows should be screened with standing jhilmils. In it only women and children should travel, though I would not divide a husband and wife if they wish to sit together in the ordinary carriages. But once established a well-managed women's carriage, and I think husbands would wish their wives to travel in it. Then there would be less occasion for dividing the compartments by iron rails, the carriages might be made so that one aperture in the floor might be reachable by all the occupants The doors might be decreased in number to the increase of accommodation, and it is very necessary that each passenger's share of the carriage

should be well marked off, not by interfering in any way with the level plane of the seats, often an essential comfort to a far travelling passenger, but by slight elevations at the upper part of the back of the seat. This division, and the space under it, beneath the seat, should be counted as the temporary property of the traveller. And whenever every seat has an occupant, it should not be in the power of a subordinate official to place another person in the carriage.

99. The sum of the whole matter is, that in railway travelling, as now managed, an ordinary native never, as a rule, knows exactly what he ought to pay; never knows exactly how it will fare with him at the station, with its fine buildings and great platform; is never sure that he will not be overcrowded in the carriage; is quite sure if taken ill he will be put to great straits. If travelling with a wife and children, he is full of trouble about them. Improved management lessening these troubles would be both charitable and politic; for from the moment he leaves his home to the time he puts his foot outside the station of arrival is a time of anxiety from beginning to end. He believes when he has paid his fare he ought to be carried with comfort, and without the possibility of having to pay again. But supposing he loses his ticket —not unlikely to a man who never had a pocket, never had to take care of a square piece of cardboard before, never was so flurried in his life—then he knows he will be treated at least with extreme contempt, his protestations of innocence will be disregarded, and he will have to pay again, or be put out of the train. It is the rule, and must be obeyed. I have known instances of this, and I know of a case in which a master had his servants' tickets as they explained, yet they were put out of the train without further enquiry, and left behind, so summary is the treatment natives have to tolerate in this matter. I make no complaint against the management; great strictness may be abolutely necessary to guard against fraud. I state the matter from a native point of view. And I think if ever a man shall arise great enough to establish a railway management on the principle that the fact of payment, and not the possession of a ticket, shall ensure a happy journey, he will deserve well of the people of this country, if not of travellers everywhere.

100. The population of the Meerut Division, omitting the Dehra District, in great part mountain and waste, is fairly dense throughout. The total of population by the census of 1865 was 4,277,688; the census of 1872 shows this to have increased to 4,967,770. The division consists of 11,025½ square miles of territory, and the population per mile is 455. Omitting Dehra District, the population of the five true Doab Districts is 4,850,789, living in 10,004¾ square miles, showing an average of 484 to the square mile.

Of these people about 650,000 are gathered into 49 towns, with populations varying between 5,000 and 80,000. The remaining 4,200,789 are gathered into 935 small towns, with populations varying from 1,000 to 5,000; and 6,426 villages with populations of less than 1,000.

101. The statement witnesses unmistakeably to the preponderance of agricultural employment. Yet in the Districts of this Division much may be noticed leading to the opinion that a larger proportion than usual of the people earn a livelihood in occupations other than agricultural, and the census statements bear this out, as they show that about 57 per cent. of the population is non-agricultural. Besides the majority of the inhabitants of towns, many persons, in different parts of the Division, are employed in trades and manufactures, as in blanket making in Saharunpore and Moozuffernugger; in the making of leather and shoes in Meerut; the making of saltpetre in Allygurh; the weaving of coarse cloth, especially for dhoties, in all parts.

In a country so much favoured of Mahomedans in days gone by, people of that persuasion, as might be expected, are unusually numerous, being rather more than one in five of the total population. A very great many of these people are converted Hindoos, and the Mahomedans here generally have not the same fine appearance as the

Pathans of Rohilkhund, the adjoining country across the Ganges. Of the Mohamedans in the Meerut Division 66 per cent. are employed otherwise than as agriculturists.

Notwithstanding all this, the true wealth of the country lies in its fields; nothing of capital worthy of mention is invested in manufactures. The people are clothed principally with English cotton cloth, supplied in greatest measure from Delhi and Allygurh. Their food comes from the land. They drink almost entirely water—care little for luxuries. The children speak of a piece of goor (clay-like sugar) as the "sweetmeat." The great multitude of cultivators are a self-denying, frugal, wonderfully busy people. Fairly cheerful, always polite. And by the help of their much loved land, they not only supply all the food requirements of the large population, but are able to export much grain, especially wheat, barley, and rice—much cotton, sugar, indigo, safflower, and ghee.

102. As I before explained, of the 50 important towns contained in this Division, I have during the past year been able to inspect only those of Meerut, Booluudshuhur, and Allygurh Districts. Upon these I now proceed to report.

MEERUT DISTRICT.

103. The towns of more than 5,000 inhabitants in the Meerut District are :—

		Population.
1.	Meerut City, ...	55,471
2.	Haupper, ...	14,294
3.	Sirdhana, ...	13,072
4.	Gurhmooktesur, ...	8,761
5.	Barote, ...	8,081
6.	Baghput, ...	7,887
7.	Mowana Kulan, ...	6,864
8.	Ghazeeabad, ...	6,477
9.	Pilkooah, ...	6,023
10.	Kuthul, ...	5,568
11.	Chuprowlee, ...	5,266
12.	Kethor, ...	5,000

MEERUT CITY.

104. Meerut City was inspected on the 20th and 21st of January. I have described this city in previous reports, and I do not propose to describe it again now. It will be sufficient if I say that it is a city containing many double-storied brick-built houses; that its public ways are admirably made and kept; that it presents many evidences of prosperity, which appear to me to increase every time I inspect this city. I have no doubt the opening of the railroad is the cause of this increase in prosperity and importance. The rail serves the town fairly well with a city station about a mile distant from the city. Fine trunk roadways, too, come into Meerut from all points of the compass. Neighbouring the city northwards, at a distance of perhaps two miles, is the important Meerut Cantonment and Civil Station, covering a very extensive site. The Cantonment bazaars, which stretch down towards the city, contain a population of 23,907. So that in reality in Meerut City and its outskirts about 80,000 persons are gathered—a centre of population of great importance. And I rather expect that when the particulars of the census of 1872 are published, this importance will be even more marked.

105. A municipality has been established at Meerut since 1865. The existing income is about Rs. 30,000 only, and as the charge for wages of all kinds is much more than half the income, the balance left for improvements is very small for a city of such importance. Comparing the municipal income of this city with the income of Allygurh or Hattrass, mentioned further on in this report, it would appear that some special cause must be at work to account for the apparent smallness of the Meerut revenue. I think it

may not be unlikely that the nearness of the Cantonment bazaars may account in some measure for it; certainly I see nothing to prevent the inhabitants of the city from purchasing the necessaries of life from the cantonment shop-keepers, who would not, I suppose, be taxed thereon.

106. I have thought that a population of 24,000 persons form a very large community for a Cantonment. And there can be no doubt that, for all intents and purposes, a great number of these persons ought to be counted as inhabitants of Meerut City, which has spread out in the direction of the Cantonments until almost all the intervening land has been occupied by shops or residences. I can understand why, in the first instance, the Cantonment boundaries were widely extended, but I think it is less easy to understand why buildings were allowed to extend within the limits of the boundary. Now it happens that the military authorities have to deal with, and govern in some things, a population quite equal to that of a town of the first class.

I know that Meerut is losing its character of one of the healthiest Cantonments in India. I think the increase of Native people within its limits has something to say to this, and believe it would have been wiser to have discouraged such increase,—to have so managed that the city should not increase into Cantonments, but in some other direction which would have permitted of the proper extension of the municipal boundary, as necessitated. In this way, as the people increased, the municipal revenue would have increased. Now, with a very considerable increase of settlers upon the site, the revenue has somewhat decreased since 1868, when it was Rs. 32,701.

107. The conservancy of the city is effected by a company of 60 public sweepers, helped by 20 bhistees, and 10 buffaloes are worked to carry away collected sweepings and impurities to the brick-kilns or to the fields around the city. The result is a fair amount of cleanliness in all the more public places in the city, and yet some bad places were seen at this inspection, notably in Moree Pahara Mohullah—named, I suppose, after a steep drainstep-like there, with a large pool of fœtid sewage collected at the bottom of the steps. Many bhisties live around the pool for the houses hem it close, and the residents complained loudly of the pool as a cause of disease. In one house four persons had died within the year. A conservancy which permits of the existence of a pool of that description in the midst of a city is unworthy the name. The employment of bhisties as part of a conservancy gang is quite a mistake. From a sanitary point of view it is better to aim at a speedy drying up of impurities. That is why dry earth is so valuable a help to conservancy. I pointed this out in writing of this very city of Meerut in 1868, as may be seen at page 16 of my report of that year. But the bhisties, as municipal servants, flourish at Meerut still, and part of their handwork may be seen in this dire pool. Good Indian conservancy is effected by helps to dryness and then quick removal of impurities; easily carried away in that state, very hard to deal with moist.

108. Again, behind the houses of the Sapte Bazaar, on the north-east side of the way, I noticed a rather extensive surface of broken land, frequented as a latrine place. Properly fashioned and kept, it would form a commodious market place. A market is held in Meerut every Monday especially for the sale of leather in hides for making water-bags for irrigation purposes.

109. The site of Meerut City is in part high and in part low, and in the outskirts of the city on all sides the land is very level. In the northern outskirt, which adjoins the Cantonment, the rainfall drainage of the city is in some measure bunded up by the Haupper road, but eventually finds its way under the road by a large culvert to stagnate in a line of excavations there. In the same way rain water stagnates in many places about the city, and in times of great rainfall it is no uncommon thing to see large sheets of water between the cantonments and the city.

110. The Aboo Nullah runs through this part of the site, and is the natural drainage way of the Meerut site. Where this nullah passes between the cantonments

and the city it has been deepened in late years,—deepened, I think, down to the *spring* level, for I notice that it always has a thread of clear water running in it. I believe it is in contemplation to deepen it further with a view to the improvement of the drainage outfall of the Meerut site. If this is to be effectually done, it will require very skilful management, and the exercise of considerable engineering ability.

The fact is the Aboo Nullah is but a Chœya, or natural drainage channel, one of three which commence the East Kalee Nuddee. These three Chœyas all commence, wide apart, in or about the northern border of the central portion of the Meerut District, and the south-east portion of the Moozuffernuggur District. Indeed, they are the commencement of a new river system which passes eastward to end in the Ganges at Kunouj; while the drainage north of this, namely, of the Saharunpore and Moozuffernuggur Districts, passes westward by the Hindun, which receives the West Kalee Nuddee and Khrishna Nuddee, to end in the Jumna seventeen miles below Delhi. The three principal Choeyas mentioned coalesce, to form the East Kalee Nuddee, seven miles south of Haupper, or twenty-eight miles south of Meerut. But the Aboo Nullah is a remarkably wide drainage way many miles north of that, as may be seen at Baboogurh, in the neighbourhood of the stud lands there. Although it is wide, I doubt whether it is much deeper than the deepened portion of the Nullah at Meerut. And in this matter what is most necessary is to determine accurately the exact difference in level between the bed of the nullah as deepened at Meerut and the bed of the nullah where it joins the Kalee Nudder. But be the natural fall what it may, I believe the bed of nullah, at least within the Meerut site, will have to be paved with some durable material to make it effectual as a drainage channel.

HAUPPER.

111. Haupper is a well known town in the Meerut District of 14,500 inhabitants, the number having somewhat increased since 1865.

It is situated in the angle formed by the Boolundshuhur and Meerut high road coming up from the south, and Gurhmooktesur and the Delhi high road running from east to west; both fine kunkur made highways of the first class. The former bounds the town on the west, the latter on the north side, and the roads cross immediately north-west of the town. But, between both of these high roads and the actual town buildings, there is a pretty wide strip of cultivated land, containing many trees which hide the town, so that travellers by either road can scarcely see it or would suspect the existence of so important a town there; and more especially as, up to the present time, the town has not been connected with the important high roads described by any permanent or very conspicuous way, although, as will appear hereafter, this important measure of improvement is receiving attention.

112. The principal entrances to the town are called gates, as the Meerut, Gurhmooktesur, Secundra, Delhi, and Kothie gates—the latter named after a Kothie near it, the residence of a pension paymaster 50 years ago—and the town was surrounded by mud walls wherever the house walls did not present a sufficient face of protection of themselves. Now there is no semblance of gates, although the names remain; or of walls, but remains of them and of a ditch may be seen on the south side.

113. The site is generally level, in places low; towards the centre of the town the site is higher, especially about the principal or Juma Musjid; but it can nowhere be called high. And in several places, the fields outside the town have a surface higher than the town site near them.

Such drainage as exists is towards the water holes or excavations around the town, of which there are two principal,—one to the north, neighbouring the Gurhmooktesur and Delhi high road, a wide ragged excavation, of dreary appearance; the other large also, but better shaped, to the south-east of the town, is the important reservoir of rain drainage. It sometimes overflows, the water finding its way as best it may

by the unmade roadways to a Chœya or shallow natural drainage way which runs through the country about 2½ miles south of the town, and which is the only representative of a river or nuddee in this neighbourhood.

About the town, however, on all sides, are small excavations which are reservoirs for rain water to stagnate in. But this broken surface of outskirt is, as a rule, not more than twenty yards wide, seeming to form a sort of narrow no-man's land between the houses and fields which come close up to the town everywhere. They are remarkably fertile, as highly cultivated garden land for vegetable produce—onions, radishes, potatoes, fennel, baigans. In some places these fields come so close to the town that, without entering them, it is not possible to complete the circuit of the abadee.

114. The inhabitants are about two-thirds Hindoos and one-third Mahomedans. The Mahomedans, who have twenty-eight mosques in all—one rather fine before mentioned—gather mostly to the east side of the town,—a part of village-like appearance, of many good sized, mud-built houses crowded about a few larger brick built; and there is no business or shop part here. The Mahomedans, many Syuds, form an important community. Some are zemindars, and the Koran is taught by Hafiz teachers to 50 or 60 boys, but there is no Moulvie in the town.

The Hindoos, who have twenty-five shewalas, gather to the west, which is the business part of many Bunneeas and Brahmins, with many well built masonry houses, divided by bazaar ways and mundees. It presents a very considerable business aspect.

115. The principal way, called Purana Bazaar, commences at the Meerut Gate on the north and runs southward, as a widish kunkur made way, drained by sewer drains to end at the Delhi Gate, so called. But the town does not end there: the roadway suddenly sinking down is continued as a neglected unmade way, winding amidst the houses of the southern outskirt.

There are some good shops in the Purana or Burra Bazaar way, but the principal business parts lie west of that road, being the Purana and Naya Mundees and Mahadev Gunj,—wide business spaces, parallel as to position, and bounded on the north by the Kubbarree Bazaar, and on the south by the Buzaja and Hulwai Bazaars, which run out westward from the Purana Bazaar way. The mundees are side by side pretty close together, but the gunj is some distance further westward, and in the interval the Kubbarree Bazaar passes up southwards to join the Hulwai Bazaar. All the places mentioned are lined with shops, and, together, form a compact business quarter well worthy of consideration.

The Purana Mundee is small; it was once kunkured, but the kunkur is nearly worn out, and its surface is much broken and drains in the centre. But some of the shops there are very good. The Naya Mundee is larger and wider with many good shops. Its surface is low and unmade, and is drained in the centre by a brick saucer-drain. The Mahadev Gunj, best of all, has a wide roadway lined on each side with good shops. Its surface is kunkur made and drained at the sides with saucer drains. In this neighbourhood the houses are particularly good. In these three business places there are several good trees affording much pleasant shade.

116. The principal trade of the Haupper merchants is carried on in goor, sugar, grain, and cotton. There is also a considerable trade in wood and bamboos, carried on chiefly by poor people living on the Kubbarree Bazaar, and some business in brass vessels exists here, a small bazaar street opening off the Hulwai Bazaar being set apart for that purpose. A general market also is held in the town on Mondays.

Although Haupper is doubtless a town of some business importance, it possesses in great measure the characteristics of a town of agriculturists, especially in its wide eastern part. Not less than from 4,000 to 5,000 bullocks and cows come into and go out of the town night and morning, for the cultivators of the extensive town lands live in the town. This of course accounts in great measure for the shocking state of the roadways—mere broken waterways, everywhere outside the business parts described above.

117. A municipal government was established in this town on the 1st of December last, and a Municipal Committee appointed, with power to raise funds by octroi

on articles of trade consumed in the town. The expectation is that the income will be about Rs. 1,000 per mensem, and if so much is realized a very considerable sum should be available yearly for town improvements, provided that the expenditure for wages of Municipal servants can be kept within reasonable limits.

At present 66 chowkeedars are employed in the town; although there are only 34 mohullahs, 28 public sweepers are employed, and there are some superior officers. I should think the necessary subordinate octroi officials might be appointed from amongst the chowkeedars; certainly it is an invidious thing suddenly to take away the means of livelihood from people of that class, and any measure having that of result would not be willingly approved by the Native members of a Municipal Committee, as I know by frequent enquiry.

118. As the result of the inspection upon which I now report, I noticed that something of improvement was already commencing in the town as the result of its improved government.

For example, a new roadway is being made to connect the Meerut Gate with the Gurhmooktesur and Delhi high road, a distance perhaps of 100 yards. The earthwork is completed, and the kunkur lay ready stacked to metal it. Cleanliness in the bazaar ways was seen to be well established, and a very considerable amount of work in regard to the removal of impurities, being collected sweepings, has been accomplished.

119. But I noticed, too, in many parts of the town a lamentable deficiency of even the most ordinary requirements of conservancy. And especially in the Brahmeenan Mohullah, just off the Bara Bazaar, every lane seemed to have its open central drain filled with the impurities which had run out from the house latrine-places. And almost in all parts of the town large cesspools of the filthiest description, making the air very unpleasant, were seen. In one or two places quite ditch-like collections of the same kind were noticed, one in connection with the house of a Mahomedan Syud. And altogether it was painfully apparent that conservancy proper has made very little commencement as yet in Haupper.

Surface drainage of the town site is also in its infancy. I have described certain of the roadways as drained, but it has not been done on any plan or apparently with any desire, as a rule, to carry the rainfall out of the town. I suppose before this can be done effectually, it will be necessary to secure an efficient means of outflow for the great south water-hole. The drainage from wells even is allowed to find its way down the centre of a neighbouring street or lane, and the, apparently, most frequented well in the town was noticeable as being the cause of a long region of mud down a public thoroughfare, fully 100 yards long. The south-west quarter of the town is a part of low site, which must be an unpleasant region indeed in the rainy season. At its outskirt there are several houses of Kusaies—a rather important community here—and their slaughter place was noticed to be an almost open maidan, disgracefully filthy, the resulting impurities of their business being allowed to run down, or to be thrown, into a ditch which skirts the maidan.

120. Four public latrines have been provided, one in each side of the town, frequented, it was said, by an average of perhaps 200 persons each daily. They are mud-built enclosures divided for males and females, and were seen to be well kept and in good repair, and no doubt they are useful as removing all excuse for the exercise of filthy habits in the lanes of the town or its immediate neighbourhood. The great majority of the men of the town go out to a distance now for this purpose. But the more respectable classes have private retiring places in their houses; some were shown to me by the residents, and were quite shocking places for filthiness and bad smell. Certainly, the question of an improved system and management of private latrine-places very much demands attention at the hands of the municipal authorities here.

As a preparation for my visit, I noticed that some drains of the town had been washed with water, which had been swept out to collect in all its impurity in considerable quantity just outside the Kothie Gate. At other places the contents of

drains had been thrown to the side of the way to dry up, or to form a filthy pool in a neighbouring lane. The drainage of the principal way ends at the Meerut Gate in a filthy ditch of some depth, which passes through the centre of a mehtars' quarter to find its way eventually to a small excavation beyond, which borders a populous chumar quarter.

121. The water in the wells of the town stands at about 30 feet from the surface, and is considered very good in all wells. There is no canal irrigation within four miles of the town, and the wells have not been affected by it.

122. A new Dispensary has been recently established here. It is well placed near the centre of the town, and consists of a Native house of some pretensions to importance. The accommodation consists of an inner court having a fine hall-like consulting room, two good sized wards to one side of it, and the Native Doctor's house to the other. It is entered by a good looking gateway, and is brick-built throughout. It was purchased for Rs. 2,200, and is really, in regard to appearance, a highly respectable establishment. I was shown a very good collection of European medicines, and understood that about 30 persons daily applied for advice and treatment. There was one in-patient only, a man with dysentery, who had been a Chumar but now professed to be a Mahomedan, perhaps to please the Pathan Native Doctor in charge. The road leading up to the Dispensary gateway is much broken, and was noticed to be ill kept in regard to cleanliness.

123. The town contains two serais facing each other on the same roadway, and well kept, but in no other way worthy of remark. There are three other serais outside the town on the Meerut high road, frequented mostly by bullock drivers.

124. The school-house at Haupper is in the Kubbarree Bazaar,—an upper room reached by eleven remarkably narrow steps, which lead up to an open platform roof, beyond which is the school-room of good size and respectable in every way. A Shewala or Thakoordwara hems it on one side, and altogether it is not placed as I should have expected the school-house of an important town like Haupper would be. There are 49 pupils, and English is being well taught.

125. The people in Haupper appeared to be in good health. Fever was said to be very prevalent in and after the rainy season, but not to be a cause of spleen enlargement. I examined some persons whose sallow faces attracted my attention, but could not find any one so affected.

126. There are about fifty houses of mehtars in the different outskirts, but pigs are not allowed to be kept.

127. The Tehseelee and Thannah are outside the town on the Boolundshuhur high road, accommodated together in a large brickwork structure, enclosing a court-yard well shaded with trees. It looked somewhat dilapidated with its entrance doors broken off their hinges, and a gothic window frame above the gateway without panes. Inside it was seen to be well kept. The Mortuary Registers both of the town and rural circle are kept by the Police clerk, and were seen to be well written up to date.

128. My impression with regard to Haupper is, that it is a town of increasing importance. It contains many good masonry houses. New houses of the same kind are being built, and I think an improved municipal management was much required.

The work the new municipal authority will have to do requires little seeking. As regards the bettering of the general health of the people who throng the town, cleanliness will have to be perfected; with so good a staff of sweepers there can be no difficulty about that. The site will have to be effectually drained from rainfall; stagnation of water about the town as regards the many small cuttings and excavations prevented. For this purpose the remaining mounds of the old walls, which are municipal property, are very valuable. And I think the narrow strip of waste land about

the town might be readily converted into a pleasant roadway, if not boulevard, with much advantage to the purity of the air circulating in the town.

Wherever the municipality may have money to spend on a really great work of improvement, I think the large ragged water-hole on the north side, skirted by the Gurhmooktesur high road, might be brought into shape as a tank, and its borders planted with trees.

Most important of all, however, is the question of improving the drainage in the direction of the natural waterway before mentioned, for, as the places where water now stagnates are converted to dry land, and the town site generally better drained, so will the tendency of the great south water hole to overflow be increased. Provision must be made for that overflow. I think the zemindars who own the land on the south side of the town are able to show how this may be provided for.

SIRDHANA.

129. Sirdhana, inspected on the 21st of January, is noted as a town principally on account of having been the place of residence of the famous Begum Semroo, who became a convert to Christianity, and left at her death a very considerable property to the authorities of the Roman Catholic Church, besides benefitting that church considerably during her lifetime. Her estate, before it passed to the British Government, was of great extent, and something of the regal style in which she must have lived may be seen now in a large mud fort on the north side of the town, at Lushkergunj, which was her especial seat of power. Now the fort is abandoned, its walls are falling to ruin, and inside it presents the appearance of a mud-built village, many houses in ruins, the open surface being cultivated; slowly, no doubt, the walls will fall back into the ditch, the plough will have its own again, and the village mark the site of the old fort. But all this will take time, for the ditch is large.

The Begum, however, did not live in the fort. Her palace, called Begum's Kothie, on the east side of the town, but at some distance from Lushkergunj, is a fine house, built quite in a modern style, in perfect repair now, although not inhabited. It has a grand flight of steps, stands in extensive grounds, and as to appearance would serve quite well as a Government house for a minor local Government. It is well kept in every way, but silent and deserted. It contains some pictures, principally portraits, valued perhaps very much by the poor old Begum, but I should think of very little intrinsic value.

130. In quite modern days, Sirdhana, too, has become noted for its Christian institutions, consisting of a church of rather imposing appearance, standing within a remarkably large enclosure, surrounded by a very fine ornamental wall; and a college, being a low masonry house—once the Begum's own place of residence—in a separate enclosure near to the church. All this church property is quite outside the town on the south side, and all is of course Roman Catholic. I noticed that the church enclosure was being cultivated, like the fields outside, by Native Christians, of whom a considerable society exists in the neighbourhood of Sirdhana.

Having heard much in various parts of the Meerut district of the importance of this centre of Christianity, which grew out of the Begum's charitable disposition, and is maintained principally by her bounty now, I had come to an exaggerated belief concerning it. A closer knowledge of it by actual inspection leads me to think that it is not very prosperous or important. However, there it is, set down certainly in an isolated place in the midst of an unbelieving people, and it may be working a silent good of which I am not competent to judge.

Nothing of this good, however, has yet extented itself to the neighbouring town, which is in a very poor state indeed, and has been much neglected.

131. The site of Sirdhana is low. The town may be described as consisting first of the town proper, then of a plain of considerable extent north of it, then of Lushkergunj, with its fort, most northern of all. The town proper appears on its south-east side to have been to some extent fortified. A wide ditch appears there, but nothing of

walls now, and the entrance way winds as though for purposes of defence, crosses the ditch on low earthwork, to reach the gateway of the Begum Kothie. From thence it turns at right angles westward to go into the town, being its principal way. The surface of this principal way is very low, unmade, broken into holes; here and there remains of brick pavement appear; as a whole it is a very miserable way indeed. Its course winds at first; it is characterised by poor shops and houses partly in ruins; further westward a few good masonry built shops appear, amongst which I was glad to see a Native Doctor's shop for the sale of the better kind of Native medicines. But taken altogether, its appearance is so poor, that I find it hard to believe Sirdhana can be a town of 13,000 inhabitants. The side streets in like manner are low, broken, unmade, and many of the houses there, too, ruinous. The town as a whole was noticed to be very silent. There seemed to be no movement or business of any kind. It was explained that bullock carts very seldom came into the town, which has no trade, but is rather a town of agriculturists. Between two or three thousand bullocks, the property of the cultivators, are lodged in the town at night and go out every morning.

132. The plain which divides the town from the Lushkergunj has a much broken surface, from which earth has been dug without any sort of order or consideration. A kunker made roadway runs through the centre of it, joining the town and Lushkergunj. The old fort is to the northern side of the plain, which was, I suppose, the parade ground for the Begum's soldiers. Lushkergunj is the market place of the town, market being held there on Fridays. Its two principal ways are laid out so as to cross each other, making a chowk in the centre. It is evidently a modern place, consisting mostly of the two roads mentioned, which are lined by poor looking shops. These roadways have been levelled with earth dug from each side, making a deep drain, and they are to be paved with kunker, and I suppose such business as Sirdhana has will centre here.

Apparently Lushkergunj was established at the time the fort was built; at any rate it is entirely separate from the town proper, and is a place of very little importance, although perhaps more easily improved than the town.

133. The town itself is old. As seen from the fort, it may be noticed to contain some rather good looking houses, principally the residences of Seraogees, who inhabit about 400 houses in all, and have four temples, good looking as usual. A town having a community of that sort cannot be altogether past improvement or unworthy of regard. Act XX. of 1856 is in force in this town. An income of Rs. 431 per mensem resulting from a house-tax is raised for municipal purposes, but there is no especial municipal authority.

Fifteen public sweepers are employed, but either from the pay being insufficient to ensure earnest work, or from the inattention of the controlling authority they do not do their duty, for the town proper, as a whole, was seen to be a filthy, place, neglected cess-pools abound, the removal of sweepings is neglected.

134. The inhabitants of Sirdhana were observed to be generally weakly looking and below par. Enquiring as to the cause of this, I found that enlargement of the spleen was a frequent condition in persons—young and old—examined, and heard a quite general complaint of the unusual prevalence of fever, from which it was said almost all the people suffered every year.

The appearance of the inhabitants confirm this. The Mortuary Registration for 1872 records the death of 471 persons, of whom380 died of fever. The popular belief in regard to this matter is that the increasedmoisture due to canal irrigation is the cause of this suffering. It happens that Sirdhana is in the midst of canal irrigated country. All the land around for a long distance is irrigated; the site of the town is low. The water in its wells is now only 10 feet from the surface; it used to be more than 20 feet. And in the rainy season, what with the ditch on the south-east side the broken plain; the ditch about the fort; and other excavations in and about the town, a quite extraordinary amount of moisture collects in the site, and then fever prevails as a general complaint. In September and October of 1872 alone 183 deaths from fever were recorded.

135. Something of endeavour has been made to counteract this undue prevalence of moisture, by the cutting of an artificial drainage way from the town at its southern outskirts to the Hindun near Rugnathpoor, a distance of nine miles. This I think, if kept in proper repair, must be very useful to prevent any actual flooding of the town in days of extraordinary rain. On the south side of the town, too, there is a great excavation amidst the houses, including fully eight beegahs of land, and I noticed that the work of filling up this rugged and altogether filthy place was being effected by means of brick-kiln earth brought from a distance. Completed, this will be a great improvement.

136. But I do not think endeavour in this direction should cease with its completion. I believe the most hopeful method of essaying to improve the general health of the inhabitants will be to continue the work of levelling, commencing with the plain described, and continuing until no such thing as an excavation shall remain anywhere in the town site. The ditch on the south-east side of the town, wide but not deep, especially merits attention in this direction. I think some bastion like earth-works near it, or earth from the fort wall, might be utilized in this good work with great advantage. Certainly the roadways of the town should be brought to a good level and be drained.

But I need scarcely add that all this endeavour to decrease the existing moisture will depend for its success on the thorough efficiency of the drainage cutting to the Hindun, which—as places for the stagnation of rainfall disappear—will have more and more to do.

137. The Tehseeldaree, a square building fairly kept, is outside the town on the east, and near to it is a Christian village. I believe Sirdhana, on account of its climate, is not popular with Tehseeldars as a place of residence. But I may safely say I know hardly any town in which energy and discretion on the part of the resident magistrate could be more usefully employed than for the improvement of Sirdhana.

GURHMOOKTESUR.

138. Gurhmooktesur is a town of very considerable importance, with a population of 8,720, contained in 2,200 houses. And it is held in much esteem by the Hindoo people of this part of the Province as a place of pilgrimage for the especial purpose of worshipping and sacrificing to the Ganges. There are four principal temples dedicated to Gunga, a clothed white marble female image set in the place of honor in the temple, and to which the offerings are made. Two of these temples to Gunga stand on the highest part of the town site, facing the river itself, which borders the town eastward. High raised, they form a conspicuous mark in the landscape, and can be seen from far on both sides of the Ganges. The two other Gunga temples are lower placed: one at the northern outskirt on the margin of the Meerut high road, a temple of much importance, which contains within its precincts the Gunga well of peculiar sanctity, in which all pilgrims to Gurhmooktesur must wash. And near the temple, too, are not less than eighty monuments to suttee. Besides these four principal temples, there are not less than 200 other temples of sorts within the town boundaries, dedicated to different gods and goddesses, or to Mahadev. Even Kalee has a temple here, raised on a detached hillock, but the temple is going to ruin, and the very little black goddess it contains does not betoken much consideration for Kalee in these parts.

139. Being a town of temples, I need scarcely say many Brahmins live at Gurhmooktesur. The local estimate was that there are about 1,000 houses of Brahmins in the town. The principal Brahmins are Purohits of wide fame, and rich. The Brahmins, as a class, are well off, and realize fair incomes from the gifts of visitors and pilgrims. In the full moon time of October, as is well known, a very large assemblage of Ganges worshippers collects here, principally to bathe in the river under the guidance of the resident Brahmins. This Gurhmooktesur Fair, as it is called, is perhaps the most important fair in these provinces, always excepting the great fairs held, for exactly the same purpose, at Hurdwar (where the Ganges comes flowing out of hills in all its purity). These, however, are only greater than the Gurhmooktesur Fair—as regards the number of people assembled—every 12th year, but especially every 40th year, when the

concourse at Hurdwar is estimated at from 3 to 5 millions. The annual average at Gurhmooktesur is 400,000.

But besides this principal assemblage, people in small numbers, as four or five hundred, come to bathe at Gurhmooktesur on every new moon and every full moon day throughout the year, the numbers in the rainy months increasing sometimes to as many thousands. So that altogether the Brahmin community of this town has frequently returning opportunities for profitable employment.

140. But although the town is essentially a town of Hindoos, it contains an influential community of Mahomedans, Sheikhs, and Mahomedan Rajpoots, inhabiting in all about 800 houses. They also have a holy place—the Durgah of Gunjallah Buksh, a large enclosure with a handsome gateway, all built of kunkur blocks, which contains the tomb of that saint. It was built 300 years ago, and is now in good repair.

The Durgah is visited by Mahomedans and Hindoos, who present gifts at the tomb. I was not allowed to enter it because of wearing boots. I suppose this Durgah was intended as a rival attraction to the Gunga temples, and perhaps the first five letters of its name favour that idea. It occupies a conspicuous site near the centre of the town, and is fronted by an open space in which are many small tombs of the descendants of Gunjallah Buksh, who was the founder of the Mahomedan community here, now certainly well established and possessing seventeen mosques in the town. But the Brahmins will not be easily displaced, and even now have just completed a huge new shewala, which,—but that it stands north of—would cast its shadow on the principal of these mosques.

141. The town in its greater and important part stands on the right bank of the Ganges so as to overlook the very wide khadir, or low sandy land, in the midst of which the river flows, and on which the great fair is held. Both on the river side and away from the river, however, there are lower placed quarters of mud-built houses, the residences of chumars and other low caste people.

The Brahmins, Bunneahs, and other good caste Hindoos, and the Mahomedans, have their houses on the higher ground. These houses are in many instances brick-built with flat roofs, and in good repair.

The bazaar, or principal way, runs from west to east, to end by a sudden and much broken descent into the Ganges khadir. It is a narrow way for a main street, and has been much encroached upon by the pushing forward of house fronts in different parts. Its surface of course follows the rise and fall of the curved site on which the town stands. Commencing from the westward, there are on both sides of the unmade way commodious serais, four in all, being irregularly shaped enclosures, with the usual surrounding thatched huts and shady trees overhead. In some places there are houses in the centre of the enclosure. Being a town of many visitors and travellers, the serais are much frequented. They were seen to be fairly well kept, and the keepers of them flourish apparently.

142. Beyond the region of serais the road opens out into a much confined and rather poor looking gunj, capable of much improvement. The business space is incommoded by the situation of the shops, some being quite in the centre of the gunj space. Considerable heaps of grain were seen here exposed for sale, and this part of the town is well worthy of improvement. From the gunj the bazaar proper commences, with fair shops on each side, and the roadway so continues to the top of the slight ascent. There it is lined by quite fine double-storied masonry houses and is paved with bricks.

The shops here are decidedly good, and so continue for some way down the descending road towards the Ganges. But the brick pavement, a work of improvement of other days and much broken, soon ceases, and the roadway ends as it began, unmade and undrained. Where it suddenly terminates at the descent to the khadir land it is broken into a ravine into which sweepings are thrown, and appears as one of the most disgracefully neglected outlets of a town I am acquainted with. I have no doubt travellers to Nynee Tal during past years must have noticed this place of rather perilous descent

even in a dooley, and wondered why the main street of a town should end in such fashion. The cause is simply neglected municipal management, which has permitted the rainfall of many past years to flow down the main way, to its utter destruction, at the naturally rather precipitous termination. But there is nothing in the site itself to prevent its being converted into and maintained as a highly respectable entrance to the town on that side.

143. The houses of the town, off the main way, stand close together, the public ways amidst them being simply waterways, as a rule remarkably narrow, the prevailing narrowness even encroached upon, very generally, by earthen door-steps or chabootras. The rains of succeeding years have cut the lanes into ditch shape.

One of the highest sites of the town is occupied by Mahomedan landowners and others, formerly prosperous, as their brick hawelees testify. Now certainly they are poor and the hawelees ill-repaired, for in the mutiny they sided against the Government, and their principal person, Towahir Ally Khan, was in the end hanged and his property forfeited to Government, as, I understood, it now remains. Here it consists of neglected brick buildings, some ruinous.

The town southwards resembles a village in all respects, and is inhabited in great part by cultivators. North-westward, wherethe site looks towards the Ganges, is the principal Brahmin quarter, where these fortunate people were seen to be comfortably lodged in good brick houses with temples intermixed.

Down below this quarter, on the Ganges khadir land, is a very extensive wood mart, where considerable quantities of timber and bamboos are collected for sale, being brought principally from Nujeebabad. The mart is apparently private property, and the owner is building a fine new house for himself, and shops are growing up in the neighbourhood of the mart, the town showing a tendency rather to increase in that direction. Between the Brahmin quarter and the town, there is a short bazaar way called Chhota Bazaar.

Houses fallen into ruins are scarce in the town, but in some places they do exist and even on the main bazaar roadway there are vacant house sites.

144. The land of the town site and its neighbourhood is essentially sandy. But below the sand there is good foundation for wells, which are numerous in the town and well built. The water is considered good in all the wells, and was highly praised by the inhabitants. There is no canal irrigation near to the town. The water stands in the wells at a depth from the surface varying from 30 to 50 feet, according to the height of the site.

145. In regard to conservancy, I was rather surprised to find this town remarkably clean, as the result of former visits, and especially of an inspection made in 1868, had led me to believe that I should find it otherwise. But certainly in respect to this matter a new order of things is growing up in Gurhmooktesur. And in other respects I think, and it gives me pleasure to report it, an era of improvement in this town is commencing. Section XXXIV. of the Act of 1856 is in force in this town, and may have been in force for some years past; but if so, its rulings were disregarded. At this last inspection I could find no filthy place anywhere in the town. And where, formerly, about the principal well of the place—in the brick-paved part of the bazaar, there appeared much of filthy moisture and a general appearance of shameless neglect even in the chief place of public resort—now I noticed a general appearance of order and perfect cleanliness. The same remark applies to the bazaar way and the general public ways throughout the town. The collected sweepings are now carried daily outside the town, eight public sweepers being employed in the work.

146. A new dispensary is being built in the town on a well raised site in the most respectable part, between the Brahmin and Mahomedan quarters. It is being admirably built of very good materials, and will be a credit to the town.

147. I noticed that it was in contemplation to widen and straighten the main bazaar way, measurements for that purpose having been made and flags set up to mark the new boundaries the way will have. I need scarcely say the bazaar cannot now be made straight at any reasonable cost; but the improvement contemplated, and for which all

reasonable compensation is provided, will result in the attainment of the one absolutely essential commencement of improvement for an Indian town,—a respectable centre way. I trust it may be possible to pave this way with kunker, to drain it with saucer shaped drains, and to thoroughly and permanently reclaim its broken, ravine-like, eastern extremity.

148. The municipal management is in some measure in the hands of three resident gentlemen, who called themselves members of the Municipal Committee, but I gathered that they are members of the old *punch*. They walked with me in the town, and appeared to be anxious and earnest about the work of improvement.

The municipal income is at present Rs. 226 per mensem. Of this sum Rs. 180-8-0 are paid principally as wages to municipal servants, *viz.*, to eight sweepers, 25 chowkeedars, one jemadar, and one bukshee. As there are 13 mohullahs, this gives an average of two watchmen for each mohullah, which seems excessive. Certainly the sum left for improvements is very small. Perhaps it might be possible to increase the income, which now results from a house tax. But I doubt whether it would be a desirable measure to shift, in any part, the burden of taxation here from the shoulders of the rich householders to the poor people, by taxing the necessaries of life.

149. The natural drainage of the town site is admirable, and nowhere does water lodge. The rain as it falls runs away to the Ganges. And to this end, the drainage is perfected by a wide sandy bed, looking like a dried-up river, which passes the town on the south side, and westward of the abadee splits into three divisions, which drain the lands of Kareempore and Beholee, villages west of Gurhmooktesur. There is no such thing as a stagnant pool in or near Gurhmooktesur.

150. The people of the town, of whom I saw many hundreds, appeared to enjoy remarkably good health, and the general opinion was that they were unusually free from disease. Fever, though common in the autumn season, is not persistent, and enlargement of the spleen was unknown; or certainly not believed to be present, if at all, in more than one in a thousand of the inhabitants. Generally the people seemed to be clear about a few things:—That they were poor; that they were often hungry; but that they were always very well.

151. The Police Thannah is outside the town on the north side, a place of considerable size, but ruinous and broken down, although built some time after the mutinies. Its wood and bricks were bad, its lime mixed with ashes. And, being a Government building, I am glad it will soon disappear altogether, as a new thannah is being built on a high site at some little distance westward of the town. A new thannah, which for goodness of materials—bricks, wood, lime, and tiles—and carefulness of construction, surpasses anything I have ever seen before in the Civil Department. And I have observed these things now carefully for years. I know nothing of the Engineer who is superintending the building of this thannah, but I bear willing testimony to the thorough reality of his work as seen at Gurhmooktesur, both in this new thannah and the new dispensary. I may be pardoned if I add, that seeing much of the country as I do—mixing and talking much with its people—I am persuaded that nothing tends more to settle the public mind and persuade it of the permanancy of existing things than the construction of such public civil buildings as may be necessary in efficient style, worked out in permanent material.

152. I noticed that the mortuary register both of the town and of the villages was carefully written up to date,—the former by the Bukshee of the town, the latter by the Police Clerk. I may perhaps mention that there is a private school at Gurhmooktesur, kept by Kunhaya Lall, where I saw about twelve boys learning English. The master complained that the total sum of Rs. 11 per mensem received in fees was not sufficient for his support. He hoped he might be encouraged to persevere.

BAROTE.

153. Barote, inspected on the 12th January, is a town of considerable importance,—a town which has received much attention, and consequently has been much improved during the past few years. It is a town of business, and I should think now contains more people than the census statement of 1865 shows. Its site is high; it contains many brick-built houses, and not less than 500 houses of Seraogees, the chief of whom are the important merchants of the place.

154. Barote stands close to the Eastern Jumna Canal, in the midst of a highly irrigated country, and its high site is, under those circumstances, of great importance. The principal way of entrance is on the south side of the town, and commences as a winding road, broken and low, passing through a Chumars' quarter to reach a rather ruinous gateway. Beyond the gateway the road splits into two branches, the road on the left hand, of little importance and without shops, passing to the Naj Mundee on the western side of the town; the road to the right hand, important, being the main bazaar way, paved with bricks, draining in the centre. The brick paving, however, only two years old, was so badly made, that it is already much broken into holes.

The shops on this roadway are not important. Two serais open off it, one on either side,—poor, mud-built places, but commodious—and the way ends at the old mundee.

155. The old mundee is an oblong of fair size, its wide centre roadway admirably made with kunker, its surrounding shops and houses very good. Trees stand on each side, and the whole aspect of the place is pleasing, this result being much aided by the handsome frontage of a remarkably fine Seraogee's house there.

From the old mundee, a short bazaar roadway leads westward to a second square, the Naj Mundee,—the grain market,—a busy place, too, with shops on all sides, but not so important as the old mundee. From the Naj Mundee, again, a short bazaar way goes westward to reach the fort,—a small brick-built fort of other days, with a crenulated wall, high raised in the midst of the western part of the town. The Police office is there, and from its roof the town is seen to contain many flat-roofed masonry houses, surrounded by mud-built outskirts, many trees mixing with the houses.

156. I have described above the business part of the town as it at present exists. But something remains to be described.

The canal passes the town on its west side, and a new circular road has been made from the canal to pass round the town on its north-east and south sides, where it ends at a rajbuha. At the eastern portion of this new road, which is kunkered throughout, a new bazaar has been laid out, a double line of trees have been planted, and some good looking shops built. But unfortunately the site is low there, the roadway bordered by an extensive depression, which collects much water in the rains and sometimes indeed floods the new way. This new bazaar is joined to the old mundee by a wide but short roadway, also in part lined with new shops, and I think undoubtedly, in time, the business part of the town would extend in this direction. But now the flooding injures the foundations of the new shops, which evidently are not counted as a valuable property yet, and much of the building space remains unoccupied. Very little business seems to have flowed there yet, and it does not look quite like a prosperous place, this appearance being increased by the damage already done to the young trees, a good many of which, having no surrounding fence, are broken; and some will die from injury done to the bark in tying animals to them.

It appears that the site of the new bazaar was property forfeited after the mutiny. Its sale produced Rs. 12,000, with which the new roadway has been made, and a new dispensary is to be built on a good site west of the fort. The new roadway has opened out the town very well, and given to it on almost three sides a highly respectable precinct. But until the eastern excavation can be efficiently drained and otherwise improved, I do not think the new bazaar will prosper.

157. Barote is governed by a municipal committee of ten members. The income is only Rs. 4,500 per annum. I think, with so limited an income, a quite unusual

amount of improvement has been effected. The public thoroughfares generally are well levelled and drained. Conservancy has received a great amount of attention, and the town everywhere was seen to be remarkably well kept in respect to cleanliness. Fourteen public sweepers are employed, six of whom are attached to the public latrines. These institutions, situated on all sides of the town, are much frequented; they were seen to be well repaired and properly managed.

158. The people of Barote were noticed in many instances to be unhealthy looking, and spleen enlargement was found to be a pretty common condition. Fever is the prevailing complaint, and of 256 deaths recorded in 1872, 203 occurred from fever. In different places around the town there are no less than six large excavations resembling that described on the east side, and a very large amount of water is held up by them every rainy season. Indeed in the land generally around the town, a great amount of water collects in the autumn time every year. I heard loud and very general complaint of this trouble of waters. Barote is in the midst of canal irrigation, which extends on all sides of it for some miles. Formerly the land in the neighbourhood drained well to the Jumna, about six miles distant from the town westward. But the Jumna Canal has cut off the town from the river. Rajbuhas, pretty numerous and high raised, help to this mischief. And now the surface drainage has become defective, especially in Bazeedpoor, Allowulpore Adreespoor, Oseeka, and Bam, lands which neighbour Barote on the east and south sides. The spring level of this country generally has been much raised. About the town of Barote the water in the wells is from 8 to 10 feet from the surface. It is believed that before the canal was made the water stood in the wells, at this time of the year, at from 28 to 30 feet from the surface. This denotes a very great change indeed in regard to moisture, and should, I think, be accepted as the probable cause of the persistent prevalence of fever there, and I think every possible endeavour should be made to perfect the surface drainage of the country indicated above.

BAGPUT.

159. Bagput, inspected on the 13th of January, is also a town of considerable importance. It is situated on the Jumna, on the Meerut side of the river, about 20 miles above Delhi, and it is the port of export for country produce of the Meerut District, boats from Bagput going principally to Delhi and Agra, sometimes even to Calpee and Allahabad. Carts, too, are extensively employed in this trade.

The principal article of export is goor, which is collected in large quantities, in cakes of four seers each, at Bagput, and is sent to Agra and Calpee for distribution in the Native States and Bundelkhund country, where sugar-cane will not grow.

160. Bagput is divided into two quite separate portions, Bagput Kusbah and Bagput Mundee. Kusbah Bagput is a large Thakoor village, close on the Jumna, with ravine-like lanes, and many ill-shaped brick-built tenements, high raised, bordering them. It is a home of cultivators only—cultivators possessed of many cattle which graze in the Jumna khadir, especially on the opposite side of the river where the land is level, and makes a famous grazing ground. Nothing of modern improvement characterises the kusbah or can be accomplished advantageously. The site drains admirably to the Jumna. The village sweepings find their way in due time to the fields. The water in the wells is good. The people, two-thirds of whom are Thakoors, are strong and tall. They boast of their good service in the mutiny times, when they sent supplies to our army at Delhi. They hunt pigs in the grazing ground across the river, and proposed to take me over the water to see some sport. Altogether they are a pretty independent, self-reliant people, well able to take care of themselves.

161. Mundee Bagput is quite another place. It stands north of Kusbah Bagput, and is about half a mile from the river; in fact just where a town ought to be—on the high land before it begins to break into ravines which lead down to the river.

It is a town principally of merchants, and contains 150 houses of Seraogees—best of all merchants. As I have said, its site is well raised and is so thoroughly drained to the Jumna that no water lies anywhere, even after the heaviest rainfall.

In days gone by, the town was surrounded by a low wall, and entered by six gateways. Very little of the wall or gateways remains now; on the contrary, the town has been opened out and improved very effectually.

Its plan is easy of comprehension. One remarkably wide roadway runs through the town from north to south; another runs from east to west; the two ways cutting the town into four portions. But the portions on the west side are more extensive, and here a third roadway runs from north to south, so that the town has two chowks.

All these ways are straight, well made with kunker, and properly drained.

Outside the town, but quite close to it on the north, passes the highway from Meerut to the Bagput bridge-of-boats; and on the west and south sides is a wide but unmade roadway around the town, which also leads down to the bridge-of-boats. So that here we have a town, not only with admirable ways through it, but open, well kept precincts in great part all round it.

Unfortunately few bridges-of-boats can keep the same place for a series of years. So now at Bagput the bridge has had to be shifted to the south of the town, and the fine Meerut road cannot reach it. But the road is a great help to the bringing of produce from the interior to Bagput, and provides an admirable precinct on the north side of the town.

162. The principal way is certainly that first mentioned. The houses of the principal merchants line it, the shops are good, the houses well built, some quite fine. Off it, to the west, a large gunj opens, being a square of fully 130 yards, surrounded by fine masonry shops and gódowns. At the time of my visit this principal way and gunj were crowded with large bullock carts, all laden with goor in cakes. The business of opening out the carts and counting the cakes into the shops and godowns was proceeding in many places at once, and the air everywhere in the town carried a scent of goor, not unlike the scent of honey. Certainly the goor trade at Bagput is quite extensive, and I think peculiar. As Buruj Bazaar in Goruckpore gathers the goor of the country across the Gogra, and exports it, in the form of sugar, to Bengal, so Bagput gathers the goor of the Doab, and exports it, unchanged, to the less favoured countries beyond the Jumna.

All the important ways of the town are lined with shops of more or less importance. The site, as a whole, is not extensive, and may easily be inspected everywhere in about two hours. The smaller ways are fairly level, the houses generally in good repair, and the town was noticed to be characterised by a condition of cleanliness and good order quite extraordinary.

163. Its people were noticed to be strong looking and in good health. The principal Hakeem of the town, who walked with me for a considerable time, was of opinion that the general health of the community was very good. This he attributed to the sweetness of the drinking water, the goodness of the site, and the general prosperity of the people. He expressed himself strongly as to advantages of the cleanliness which now characterises the town, and is the result of recent endeavours. He sometimes, but rarely, saw cases of spleen enlargement. The appearance of the people in the streets and shops corroborates the truth of his statements, and contrasts with the appearance of the people of Sirdhana and Barote last inspected.

Canal-irrigation does not extend to the land of Bagput for a circumference of perhaps three miles about the town. The water in its wells is 35 feet from the surface. The land about it is much broken by natural water-ways. There are no water-holes or excavations of any extent which will hold water near the town.

164. Bagput is governed by a municipality. The income last year was Rs. 5,423. The local authorities expect it to increase. Fourteen public sweepers are employed, eight for the bazaar ways and six for the public latrines, of which latter there are three on different sides of the town, in the form of good sized enclosures, seen to be well kept. They are much frequented. Forty public lamps have been set up on strong wooden posts at the more important ways and corners of the town. A very commendable attention has been given to the improvement of the site generally. The result is

that of all the small towns seen this year Bagput is most worthy of praise as an improved centre of population.

165. Certainly some things want improvement yet. The gunj well, much frequented, was noticed to be surrounded by filthy water, the surface there much requiring improved conservancy.

The surface generally of the gunj enclosure is quite unmade, and was seen to be covered in places with dust deeply lying. Formerly this place was the Tehseelee, and I should think before that it may have been a serai, for it has a mosque in the centre. Its few neem trees are poor and widely scattered. If the surface between the mosque and the shops could be a little raised and consolidated, trees be planted with orderly arrangement, the well drainage properly cared for, Bagput might be able to boast the possession of one of the finest gunjes in the country.

The circular unmade roadway where it passes round the east side of the town is low. I think it would be a great improvement to raise it, so that laden carts wishing to reach the bridge-of-boats might be able to do so without passing through the town, as they must now.

The serai in the southern outskirt, a double enclosure of considerable extent, shaded by good trees, merits improvement. Its broken surface drains in the centre. Its well was seen to be bordered by a pool of filthy water. Its houses, however, are mud-built, and it is probably private property of no great value.

Outside the town, on the east side, just beyond the low road mentioned above, there is a large new serai or purao enclosure. It was made by Kurm Alee Khan, late Deputy Collector at Ghazeeabad, but his death hindered the completion of the design, and now it remains half finished. This gentleman's family residence, a very fine house indeed, faces the serai. If the roadway between them could be raised, the town, I repeat, would be greatly improved on that side, and the new serai enclosure might become very useful.

166. The Tehseelee and Thannah face each other on the Meerut road, and are close to the town. The former consists as usual of a court-yard, with masonry built offices around it. The Tehseeldar's court is a fair sized room, well ventilated. The enclosure surface drains through the gateway, which seems a mistake.

The Thannah is now being improved, and will be, when completed, a fine place of the kind. The Police Court is an old barradurree, included in the new design. Of the two new lock-ups, both have grated doors and one a grated window, but neither have roof ventilation.

A new Dispensary is to be built on a suitable site at the back of the Tehseelee. I think a Dispensary merits a rather prominent position, and I am not at all sure it is a wise thing to connect it very closely with the Tehseelee.

The town of Bagput contains a handsome Seraogee temple, a good looking temple to Vishnu, and three mosques. Houses with ornamental fronts are by no means uncommon, and altogether it is a place which much merits the attention lately accorded to it.

MOWANA KULAN.

167. Mowana is the Tehseelee town of the Neloha and Kethor Pergunnahs of the Meerut District. In 1865 the population was 6,864; in 1872 the population had increased to 7,200, so it would appear that Mowana is a rather important centre of population, and that in this respect its importance increases. I inspected it on the 23rd of January last.

Before the Tehseelee was established there Mowana was a large village, and even now it cannot claim to be called a town in respect to any important characteristic of places so named, not one of which it possesses.

It has no made or straight way; its houses are all mud-built with the exception of a few shops. Its site, nearly level, is nowhere drained. The inhabitants, principally Hindoos, are mostly cultivators engaged in the cultivation of the very valuable and rather extensive village lands, and many bullocks go in and out of the abadee daily.

168. The town contains several large masonry wells, and the water stands in them at about 12 feet from the surface, having risen about 6 feet since the Ganges Canal, from which almost all the surrounding land is irrigated, was made. The water is, however, quite good as to taste and appearance, and is esteemed as good by the inhabitants. The town contains a bazaar way running from north to south, rather narrow, inclined to be tortuous, and opening in two places into widish spaces in which are trees. This roadway is depressed in the centre, and in the rainy season it acts as a drain to carry off the rainfall. At that time the road is almost impassable for mud.

Some of the shops (there are 200 in all) are brick-built, and really very fair shops indeed, especially those for the sale of medicines and spices. A market is held in the bazaar way every Thursday and Sunday, and many people come to the market, so that the rather narrow way in question is overcrowded, and a more commodious market-place is much required.

The mud-built houses of the town generally are in good repair, and the people are, I should say, as a rule, prosperous. Their general aspect was that of people in fair health, and children were seen to be numerous.

Fever, as usual after the rains, was said to be the commonest complaint, but neither so common or fatal as in some other towns of the Meerut District. A hakeem, who is paid Rs. 20 a month by subscription, I think an unusual circumstance, is employed in the town.

169. There are extensive filthy water-holes on all sides of the town into which the town site drains, and there is a large excavation, perhaps four acres in extent, in the midst of the abadee, which contains much water, margined with much of impurity.

170. The resident Deputy Magistrate and Tehseeldar, Mr. Jones, the first Christian Tehseeldar I have ever met, is well aware of this necessity of the town, and desires to fill up the great inner water-hole described above, and convert the space reclaimed into a market-place. I noticed that this work had already made a good commencement, the Collector having granted the sum of Rs. 500 in aid of it. The necessary earth is being obtained by the levelling of hillocks, probably old abadee site, on the south border of the town, and I cannot speak in too high terms of praise of this very sensible endeavour to improve the town both in a sanitary aspect and in the direction of general public convenience. I think it is quite certain the expenditure of Rs. 500 will not nearly suffice to accomplish the object in question, and I trust the work of filling up will not be allowed to halt for want of funds, especially as seventeen-twentieths of the village land is Government property, yielding a zemindaree profit of Rs. 6,000 a year. The chowkeedaree house tax of the town also for some years past has yielded Rs. 150 per mensem, of which only Rs. 118 have been spent in the town.

The town contains some large mud-built houses, the residences of the richer people there, and they are especially noticeable for filthy open drains running out to cesspools at the margin of the public way.

The more important public wells have wide pools of filthy water neighbouring them, sometimes so wide as to nearly fill the roadway. In three places these pools were seen to have overflowed, the water making a filthy mud-way for itself, for a hundred yards at least, amidst the houses, in the public thoroughfare.

171. Mowana has a little government school of 24 boys. The school-room is to one side of a small inner court, entered through an outer room. The school-room and its court was seen to be well kept in every way, but the outer room was seen to be very filthy, a horse having been recently lodged there. I think I understood it was the Deputy Inspector of School's horse, but can hardly believe it, as my experience of the school management generally has taught me that the officers of the Educational Department attach much importance to the maintenance of cleanliness in the entrance way and precincts of the schools.

172. Six public sweepers are employed in the town, and they certainly keep the bazaar road and the narrow lanes generally in fair order as regards cleanliness, and no disgracefully filthy place or manure heap could be seen in the town. I think they

might be required to extend these operations to the margins of the surrounding water-holes, which are disgracefully filthy, being latrine-places. The north-west corner of the town is a mehtars' quarter of 30 houses. The mehtars keep many pigs, which roam at large, and the neighbourhood of this quarter was seen to be filthy throughout and bad smelling. It neighbours the high road to Bysoomba, and the mehtars have established an open latrine-place and general place of deposit for filthiness at the margin of the road. The police office adjoins this quarter, and I think it would not be difficult or very troublesome to require a better behaviour from the mehtar community. As to the keeping of pigs, which are allowed to roam at large, I confess I do not see how that is to be prevented until Native public opinion has been created, and may call for it. Certain it is, pigs with their peculiar habits are a dire nuisance, but a pig costs absolutely nothing to keep here, and sells in Meerut for six rupees when grown up. So that the mehtars, who are very poor, have much inducement to keep them,—indeed could not well bear to lose this source of livelihood.

173. The serai is in the southern border of the town; travellers come to it in pretty good numbers. It is a poor place of mud huts, and the enclosure surface is low and somewhat broken, and drains through the eastern gateway.

The Tehseeldaree is outside the town on the north side, a small fort-like structure, rather dilapidated as to appearance.

Beyond it, further to the north, is a fine public tank, about 80 yards square, with steps on all sides going down to the water, and a sloping way for bullocks to drink at. This tank, built by the late Rae Kesho Dass, of Jansut, with a fine walled garden attached, is the one admirable feature of Mowana and its outskirts. It borders the Bysoomba road, and is much frequented by bullock drivers to water their cattle, as I saw. It was lately repaired by Saheb Singh, banker of Meerut, who owns it now, and it is a very perfect and useful tank indeed.

The Thannah before mentioned as neighbouring the mehtars' quarter is a suitable building, in fair repair, its court-yard beautified by a fine young banyan tree. As the front wall, which had been broken to pieces by the roots of a peepul tree, was being rebuilt, the court-yard was littered with building material, and I could not well judge of its condition, but I thought it might be improved in respect to general cleanliness and levelling. The public office was respectable in every way.

174. The mortuary register of the town is kept by the bukshee. I noticed that the deaths appeared to be registered as all happening on one or two days in the month, which cannot be correct. Deaths in towns should be registered on the day of death, or succeeding day. There can be no difficulty about it. The deaths in villages of the thannah circle are registered by the police mohurrir. The register was seen to be kept up to date. I think it would be a great help to improved registration if registers with printed headings were provided, as I have noticed at other places, and here especially that there was a difficulty in registering the facts under the proper headings, the lines on the pages, as they turn over, not corresponding well with the general heading which commences the book. I hope to be able to submit a form of printed register for the approval of Government shortly.

175. With reference to the more necessary improvements at Mowana, I think in addition to the very great improvement in respect to the formation of a market-place before mentioned, the bazaar roadway should be improved; the drainage of the more frequented wells attended to; the water-holes about the town in some degree shaped; their margins, if possible, planted with trees.

The custom of retiring to places beyond the abadee limits is well established, but I think the margins of the water-holes is not far off enough. The owners of the better class of houses should not be allowed to border the public way with cesspools, sometimes overflowing; but if they must have cesspools, should provide for their daily cleansing.

Lastly, I think Mr. Jones has a hearty desire to improve this town, and might well be encouraged in that direction. He has lived there twelve years, and knows the wants of the town and the ways of its people extremely well.

GHAZEEABAD.

176. Ghazeeabad is the well known town of the Meerut District situated at the junction of the Punjab and East Indian lines of railway. I inspected it on the 4th of February.

Ghazeeabad is a town easy to describe, for it stands upon a bare plain, is bordered by brick walls, and has four entrance gateways. The space within the walls may be 1,000 yards long by 500 broad, and is divided lengthwise from east to west by a main way, and also in its breadth from north to south. These roads, commencing at the gateways, are nearly straight and intersect near the centre of the town, cutting the town into four pretty equal quarters. The space being so confined, the houses are of necessity close packed, yet both mainways are remarkably wide, and a good part of the north-eastern quarter is taken up by a masonry built serai of the time of Aurungzeb, when Ghâzee-oo-deen Khan was master of the town. It encloses a large open square, and a few open spaces near to the walls in other parts inside were noticed. All the remainder of the site is covered with houses, many brick-built, but more mud-built, these last divided by narrow unmade ways.

177. The mainway from east to west is called Purana Bazaar, and is lined by very well built masonry shops, some in double-storied houses. It is paved with kunker, drained on each side by remarkably wide and deep saucer-drains, and is a highly respectable thoroughfare. The mainway from north to south is called Naya Bazaar, having come into existence as a thoroughfare in recent times, the south gate being a work of two years ago. Formerly there was no opening on the south side. This roadway may be described in the terms applied to the first, but its way is impeded, yet not unpleasantly, by a temple, well, and trees at one part. The two roads together form an every way admirable public thoroughfare to the town, a very perfect bazaar way indeed. Indeed, I hardly know any town in the province where this is so marked a feature as at Ghazeeabad. These ways are busy places of trade and traffic, for Ghazeeabad, notwithstanding its name, is essentially a town of Hindoos, and Bunneeas are especially numerous and influential. The most numerous, and I think, important community of Mahomedans are the butchers, of whom mention will be made hereafter.

178. In 1865 the population was 6,477. I understood that by the census of 1872 the population amounted to more than 10,000, and undoubtedly the town prospers, as indeed it well may with such admirable means of communication at command. Besides the railroads mentioned, the Grand Trunk Road passes the town on the south side, and the Meerut Trunk Road on the west side.

And this prosperity shows itself not only by an increase of people, but by the building of new houses and the good state of repair of the houses generally in the town. And indeed the town is about to overflow its walls on to the southern plain, where a new road from the south gate to reach the Grand Trunk Road is laid out. A new tehseelee is in course of construction there, and a gunj of shops, to be built after one plan and model, will line the road Trees have been planted there already in proper order, and a new school-house will add its attractions to the spot.

179. Outside the walls on three sides the surface is plain everywhere, but on the east side a mud-built Jat village, Jutwara Kulan, comes close up to the walls. It is the place of residence principally of the cultivators of the Ghazeeabad lands, and by its existence the many cattle which cultivators must have are not of necessity obliged to enter and leave the town daily. And on this east side also, at a little distance from the walls, there is a remarkably large well shaped tank, the sides in good part bricked, but in bad repair. It was seen to be nearly full of collected rainfall, clear and sweet, and is much valued by the inhabitants to water their cattle at and to bathe in.

Formerly it used to dry up. In the year of scarcity, I think, 1868, it was cleared out and deepened as a famine work, and since that time has always contained much water. This tank is undoubtedly old, for it has fine old trees on one side of it, and I think it probably owes its existence to the extensive brickmaking of Gazee-oodeen Khan's time, when the town walls and serai were built.

If that is so, the carefulness and consideration in this matter of the men of those days stands out in bright contrast with the brick-making operations at Ghazeeabad of to-day, as I shall show hereafter.

180. A municipal government was established in this town three years ago, and a municipal committee of six resident members appointed, one of whom is Mr. Englebright, the resident Railway Engineer. From former knowledge of this town—and I have seen it at least twice before—I am glad to be able to bear testimony to its greatly improved appearance and condition now. I do not say that all that can be done for the improvement of this town has yet been done, but I do say that the face of the place has been wonderfully changed for the better; and that with a continuation of municipal management after the same fashion, Ghazeeabad is likely to become famous, as one of the best ordered towns in the province.

The municipal revenue averages Rs. 670 per mensem, of which sum Rs. 357 is expended in wages. This seems a large proportion. However, a fair sum for town improvements remains, which, if economically expended, should suffice. For in reality the town site, as I have described, is not extensive.

181. Twelve public sweepers are employed, and are made to work well in maintaining cleanliness everywhere in the more public parts of the town. Many private sweepers, too, are employed, and as the sweepings of the town have a money value at the brick-kilns, every impurity that will burn is carried out of the town daily. With the exception of a filthy cesspool here and there in the back streets, the town site is positively clean throughout. The private latrine places even are regularly cleaned.

But it does seem astonishing to me how little regard, as a rule, is paid to cleanliness, nice or orderly arrangement, by a Hindoo man of good caste, within the precincts of his home. Often I see these homes by especial permission of the owners. Here in Ghazeeabad a Bunneea of highly respectable appearance consents to show me his home, but will not permit any of his fellow-countrymen to see it at the same time. The necessary intimation to the women of the house to hide themselves having been given, we walk in. Beyond the threshold is the antechamber. I find it is a latrine place but lately frequented by the inmates of the house, the results not hidden in any way, but just in a line, to one side, upon the earthen floor; the owner says the children will do it, and it is convenient for the sweeper. Beyond the antechamber is a small room through which we have to pass to reach the inner court; the room is a stable and the pony in it leaves little space to pass by, and it is impossible to avoid the litter and moisture on the floor. The court has clean alcoves about it, used as sleeping places. Its open floor is moist where much water has been spilt by the washing of vessels, especially about the mouth of a drain which leads out into the public way. A heap of broken timber lies to one side, a heap of broken bricks fills a corner. It is a fact that decency, cleanliness, and order—which we call comfort—has no existence in an average Indian home. A man's period of respectability is his time abroad. And I think the necessity and advantage of improving to the utmost the places and parts of public resort in a town is made more pressing by reason of this fact.

182. In many instances I noticed that the smaller ways in the town have not been levelled, or are in any way, excepting as regard surface cleanliness, cared for; and cesspools, too, and now and then a filthy drain, come into sight. The immediate neighbourhood of the most frequented wells was seen, pretty generally, to require attention, much unpleasant moisture lying there.

The south-eastern quarter of the town is inhabited principally by Chumars, and the butchers' mohullah of perhaps forty houses is there also. The lanes in this quarter were seen to be least cared for of any in the town, their conservancy even being but carelessly performed. Through the centre of the butchers' quarter a shallow unmade drain, commencing at the mosque well and passing down the public way, much requires attention. The slaughter place, too, is much confined, being a small yard, say 10 feet square, in the midst of the houses.

Three bullocks had been slaughtered there, and were being prepared for sale at the time of my visit, and the resulting scene was rather horrible. Two frightened looking bullocks to be slaughtered on the morrow stood in an adjoining shed in full sight of all that was going on, and within a yard of the blood of their late companions. The butchers acknowledged the closeness of their accommodation, and said it was once in contemplation to establish a slaughter place outside the walls; but the Hindoos, who are paramount in the town, had expressed an opinion favourable to the maintenance of the existing arrangements, on the grounds that the meat was mostly consumed by the Chumars and Mahomedans in the immediate neighbourhood, and so was less carried in or through the town than it would be if the killing took place outside. I think with proper management inconvenience from this cause might be easily minimized. If the sight of beef is what most offends a Hindoo, it must often be seen now; and at the time described the hind legs of a bullock, trussed up for cleaning, could be seen by any person passing in the main bazaar road. If any Hindoo could bring himself to look in at what I saw amongst the butchers, I think he would be glad to banish the slaughter place from his immediate neighbourhood. From a sanitary point of view I am sure the banishment would be a gain, and with increased accommodation, the slaughter place might be entirely separate from the bullock shed.

It was in connection with this quarter that the only disgraceful collection of filthiness was found in or about the town. It consists of a great pool of impurities just outside the wall, on the south side, which is fed through the wall by a narrow drainage way, and I think there can be no doubt that much of decaying animal matter collects there from the butchers' and Chumars' neighbourhood inside.

183. The removal of rainfall drainage has received much attention at Ghazeeabad. The saucer-shaped drains of the highways are in good repair (although their extreme width and depth cannot be praised, as witnessing to a waste of material, and leading to accident), and terminate in drainage ways which pass out at the gates to reach excavations outside, both on the north and south sides of the town. The excavations again are drained by cuttings to ravine land which leads down to the Hindun River, distant about two miles westward of the town.

184. The excavations of the south side are not very extensive, and might easily in great part be levelled, as unused pujawah mounds exist there, the earth of which might be utilized for the purpose.

On the north side the case is different. On passing out of the northern gateway a very considerable region of excavations comes into view, extending in a north-easterly direction to reach large modern brick-kilns in full work now. These excavations have resulted from the making of bricks for railway purposes, and they are of the ruggedest possible description. In making them nothing seems to have been thought of beyond the getting the best possible supply of clay for bricks, and wherever that could be found it was dug out, leaving earth less suited for the purpose untouched or only partly dug out. And this process goes on now, under the guidance of a contractor, who is supplying bricks for railway purposes and Government Civil buildings.

These excavations drain all the surrounding land, and a large amount of water used to collect in them. Its removal is now in great measure provided for by a long and rather important drainage cutting, one of those before mentioned. But until the bottom of the excavations is levelled, and the land otherwise put into a state fit for cultivation, it will result, that what formerly was high dry land will now, for a quite extensive surface, be moist mud for many months in the year, with a local climateric result, which cannot but be hurtful to the people of the neighbouring town and Jatwara Kulan. The Jat zemindar made loud complaints of this breaking of his land, and went so far as to say that he paid the land revenue for it; but this I feel sure cannot be true. He said he would cultivate it again when he could, and I think it would be a wise proceeding to encourage, if not help him, to do so.

185. The town walls, though perfect as an impassable barrier throughout, are in a bad state of repair in many places,—so bad in some places as to look just able only to stand up. The foundation and plinth all round is made of unhewn stone blocks, good now; but the upper part, of brick, was in good part made of peelah or soft yellow bricks, and they have decayed of course. The gaps have been filled in with mud, and I think if the local authorities desire to continue the existing and economical plan of octroi collection at the town gates, they will have to pay attention to the state of the walls.

The east and west gateways, which were, I suspect, the only ones existing in the old times, are both handsome structures, and very much merit attention and repair. For a reasonable expenditure they might be made to add greatly to the respectable appearance of the town. Now their brick-work below is broken away, the windows filled up with mud; and although joined by as fair a bazaar way as man could desire to see, and most of any structures in the town brought into view, nothing seems to have been done under the new management to improve them. No traveller, and I should think no thoughtful resident, would be moved to give unqualified praise to the new-born spirit of improvement manifest at Ghazeeabad until these gateways are brought out of their present poor state, and made worthy of the intervening street.

186. I need scarcely say that travellers frequent the town, placed as it is, in considerable numbers; and the Ghazee-oo-deen Serai is famous throughout the country.

I have mentioned it before as situated in the north-eastern quarter of the town. It, too, is entered by a fine gateway, which pleads for improvement, and a fair roadway leads up to it from the Purana Bazaar way.

The inner space is capacious, and is surrounded by 120 masonry-built rooms for travellers, having pointed-arch fronts. The centre sets of arches on each side are smaller and closer, and belong to separate places of accommodation, set apart formerly for travellers of the better description. Now one of these places is in use as a Police office, and another as a Municipal Hall, for which purposes they serve very well. There is a neat mosque in the centre, and the ground is shaded by trees, now old in places, but not appearing in orderly arrangement, because probably some of the trees of other days are dead and gone. The space might now be planted with much advantage. Facing the entrance gateway is a modern latrine enclosure. Being built entirely of peelah bricks it will soon disappear, and perhaps may hereafter, with better taste, be erected in a less conspicuous position. It was not found well kept; its small internal cells unpleasant with much moisture. I need scarcely say, with the Thannah so near, the enclosure as a whole is admirably kept. The travellers' rooms are in good repair, and the sixteen resident Bhuteara families are well off.

187. Connected with this town there are two public latrines, one for men and one for women, and I suppose, the same taste which dictated the situation of the serai latrine held guidance here, as they exactly face the north gate outside, and so cut off the view of the green fields beyond.

These places were seen to be in good order, but no great number of people frequent them, all who are able preferring to go far out from the town for this purpose.

Near this north gateway, too, there is a shallow water-hole not connected with the great excavations before mentioned. It contained a good deal of suspicious looking water, which appeared in part to have come, or have been swept out of the town, and a doubtful looking drain leading to it favoured this opinion. I think if this shallow place, of no great extent, could be improved off the face of the earth, it would be a good work done, for it lies very near the north gate.

188. The existing Tehseelee is just inside the western gate. It is by no means a bad place of its kind, or in bad repair. When the new Tehseelee is completed, I should think this place would make a very good Thannah, and then the Bhutearas complaint, that the Police had taken up their best house, would be remedied.

189. The well water of the town is remarkably good. It stands at from 40 to 50 feet from the surface. There is no canal irrigation within some miles of the town. The people of the town, of whom I saw many hundreds, appeared to enjoy good health, and the general public opinion that they were well off in this respect was frequently expressed. Autumn fever, as usual, troubles them, but is not unusually fatal or persistent. Spleen enlargement was said to be unknown. I examined a few persons whose appearance justified a suspicion of its existence, but could not detect it in any degree at all.

190. Such then is Ghazeeabad. If I have written concerning it at any too great length, it is because I have been much impressed by its appearance, its evident rise out of former squalor; and because I think it may, by perseverance, be brought easily and thoroughly into a state which shall reflect credit on the age in which we live. I think we sadly want that proof of good and stable Government to which well ordered and well kept towns witness, in a way which even those who cannot read can understand. I see the evidence daily gathering, and the Ghazeeabad authorities, if they please, may be foremost in the race.

PILKOOAH.

191. Pilkooah, inspected on the 1st of February, is a town of the Meerut District, situated about midway between Haupper and Jellalabad. On the District map it is marked as a village, but it is a town, with a population I should say, if anything, greater than that given by the census statement.

192. It is famous in all the neighbouring country as the seat of the shoe-making trade, and its population includes a very numerous community of Chumars. The shoes they make are so good that they find their way even Calcutta and Bombay. The local statement was, that about 3,000 pairs of shoes weekly are sent to Delhi and other cities. Leather also is made at Pilkooah in considerable quantities, and the Chumars there are especially skilful in the art of dyeing leather, red and buff, with which they make the upper ornamental parts of the shoe. Where green coloured leather is used it comes from Delhi, being made by Mahomedans, and pedlars earn a livelihood by bringing it and other necessaries to the shoemakers at Pilkooah.

193. Excepting in quite the centre part, the site of Pilkooah is low, certainly in some places lower than the surface of the surrounding fields. At a little distance from the town, on the south side, the high road from Haupper to Delhi passes, a new road of the best description. But nothing has yet been done to connect the town properly with this road, and the entrance way is sunk down low, so that from rain in the previous night it was full of water, and I had to find my way into the town over the fields.

As in most places of low site, so in Pilkooah, endeavour has been made in old days to improve the site as a centre of population by the making of a great tank. At Pilkooah the great tank, called "Kunkullee," is in the western outskirt. It is an unshaped excavation of vast extent, its margins wide and fairly clean, excepting at one place near to the houses of the town, where is a great manure heap. It contains much water now, and in the rains presents the appearance of a large sheet of water of considerable depth. But for the "Kunkullee" it is probable that Pilkooah would not be habitable in the rainy season.

Another excavation of considerable extent exists on the south-east outskirt, near to the Chumars' quarter, to be hereafter mentioned. And bordering the Delhi road a tank of moderate size, with brick-work margins, is being made by Hur Sookh, bunneeah of Seekherah, a village about two miles south of Pilkooah.

194. The principal public thoroughfare of Pilkooah is arranged in the form of T. The mundee, a wide way of fair shops, leads up from south to north, and is crossed at the top by the narrow bazaar way which leads westward to the great "Kunkul-

lee," and eastward to the school-house. This public thoroughfare is almost everywhere low, nowhere made, in places broken. The lanes of the town are mere waterways, the houses mostly mud-built; indeed there are not twenty brick-built houses in the town, yet it is not altogether without importance. In the mundee and bazaar there are in all about 250 shops; about ten Sahokars live in the town, and there are two great temples to Mahadev, but no mosque of importance, Pilkooah being essentially a town of Hindoos. Such poor Mahomedans as live there are dhobies, dyers, weavers, and oilmakers, inhabiting perhaps 200 houses in all. A great portion of the people are cultivators and many bullocks come and go in the town daily.

Indeed, as a whole the inhabitants are unusually mixed, both as to origin and occupation. In the eastern outskirt is a sweepers' quarter of about 60 houses, an altogether filthy place, the open spaces about it frequented as a public latrine place, an abominable part, of bad smell and thickly dotted with impurities, too plentiful even for a pretty numerous herd of pigs to manage.

Further east again is the Chamars' quarter, where the leather and shoes are made, not found to be particularly unpleasant, but of course their great tank has its water quite spoilt by the leather making. Indeed, I doubt whether they could dye their leather so successfully without the rainwater of the tank. And perhaps Pilkooah is famous for shoemaking, because of the lowness of the site, and consequent plenty of rain water.

195. Mr. Michele who purchased, after the mutiny, the zemindaree of the land of not less than 13 villages in this neighbourhood, is the landlord of Pilkooah. I believe he is an improving landlord, and he might be able to improve Pilkooah, which is profiting in more ways than one by the improved means of communication provided in these later days. About 100 looms are at work in the town and much coarse cloth is exported. Chunnerie, a thin cloth, dyed in rather elaborate patterns of spots, by a peculiar process, is made in some quantities for the Delhi market. Altogether I think Pilkooah is rather a rising town, and quite worthy of consideration.

A municipal government was granted to it on the 1st of December, 1872, and a municipal committee of five members, one of whom is Mr. Michele, appointed. An octroi was established as a means of revenue, and yields about Rs. 4,000 a year, and there is expectation of increase. I could not make out that as yet anything by way of improvement has resulted. Perhaps this may have been due in good part to the misfortunes of some members of the committee, for at the time of my inspection I found that one was a prisoner in the Meerut Jail, one was wasted to a skeleton with chronic disease, and one had lately died.

196. The people spoke of Mr. Michele as the Faringee member, and I thought they seemed unlikely to afford him willing service or assistance with regard to the improvement of the town, if he wished to improve it. War, I suppose, must have its results and punishments, but I do not believe any thing of good locally comes out of dispossessing hereditary families, especially in India. The members of the family live on in their old homes, often physically and mentally superior to those around them, but now brought down by poverty to the common level. Men of that stamp may be found at Pilkooah and other places around it, but I do not think the people generally of the neighbourhood acquiesce in the justness of a proceeding which, for the father's offence, brings the children to ruin.

197. The matter of improved conservancy has received some attention by the appointment of ten public sweepers, but apparently their work is but little controlled or its goodness insisted on.

Collections of sweepings, being manure heaps, were seen in several places inside the town, and wherever a ruined house presented itself, it was seen to be used as a place of deposit for rubbish. The condition of the sweepers' quarter has been described; but that is not the only place which witnesses to a want of common decency on the part of

the people generally. In the north-west outskirt is a largish mohullah, called Gurhee Mohullah. Examining its public ways, I was rather astonished to come suddenly upon a party of women sitting in an open space adjoining the houses, employed and disrobed in a manner altogether beyond the bounds of decency. Native politeness requires a pretence of blindness on coming to a spectacle of this sort, and so nothing was said. But afterwards it was explained, by the local officials present, that the common people of Pilkooah were filthy and indecent in respect to this matter as an established custom. This is an uncommon circumstance in or near a town, and I think the people of Pilkooah should be taught to retire to places well outside the town, as they do in most of the towns of the province.

198. Nothing has yet been done to improve the drainage of the site. This can be, I think, effected successfully only to the great "Kunkullee," which already receives such water as can readily find its way to it. But for want of drainage ways, and such raising of the surface in places as may be necessary, it follows that in times of great rain, the Pilkooah site becomes all mud and water, and so remains until it dries up. In the outskirts of the town water collects in many places, and the people are put to great inconvenience, and suffer much from preventable disease. All the people suffer from fever. The member of committee who died, died from the effects of fever; the wasted member whom I saw, and who is likely to be dead now, was brought to that state by fever.

199. The most necessary improvement for Pilkooah is drainage of the surface, so that rainfall may run away quickly. There is no river or even nullah near to the town. Four miles eastward the Choeya Nuddee passes, a very poor drainage channel, I confess. But measurement might show that its bed is a good deal lower than the Pilkooah site, and by searching in that direction it may be possible to find a drainage way leading to the Choeya. If an escape channel could be provided from the "Kunkullee" to it, then the town site might be thoroughly drained to the "Kunkullee." But the surface of the mundee roadway will have to be raised. And indeed the mundee merits improvement, being rather good looking, with its mixture of high and low houses, fronted by trees, some of which, however, have disappeared. A busy and much frequented market is held in it on Fridays. The bazaar way on the contrary is very poor looking, the houses fronted with broken thatch verandah places for shops.

200. The water in the wells is about 20 feet from the surface, and though not counted good by strangers, the inhabitants are satisfied with it. Canal irrigation is only sparsely effected in Pilkooah land, and not at all in the land south of it.

201. The police office, formerly the chowkee, is a small place of mud-built huts, in the midst of the town, reached by the narrowest of lanes.

The municipal hall is another mud-built shed, with no sign of importance, excepting perhaps in that its openings are arched.

The school-house is a small masonry structure, in the north-eastern out-skirt, consisting of one room with a verandah to the east. The plaster of the walls was seen to be broken, the window frames without glass, which is of no consequnce, only it would be better not to have frames if they are to be empty. Thirty five boys were assembled in the school-room, hardly large enough to accommodate so many, and the air was very close, by reason especially of there being no roof ventilation.

The school-master, too, who seemed to be a pigeon fancier, would do wisely I thought not to keep his pigeons in the school verandah, as they increased the general unpleasantness. But he was teaching the boys carefully, and perhaps life, without pigeon fancying or its equivalent, would be hard to bear for a school-master.

The town contains two serais facing each other on the same roadway. Poor places of the kind, they were noticed to require improved management. In both the surface of the enclosure drains through the entrance way. Visitors are pretty numerous, especially on market days.

KIRTHUL.

202. Kirthul, inspected on the 10th of January, is really only a populous village of 50 brick-built houses and 1,400 mud-built, situated in the midst of a canal irrigated country, in the north-west corner of the Meerut District. In the census statement it is entered as a town of more than 5,000 inhabitants, hence my visit of inspection.

203. The site of the village is slightly raised, and it is bounded on the west by an extensive lake-like water-hole, the water in it 10 feet deep in January; and on the east by two less extensive, but still considerable, excavations, containing much water. These latter are drained by a cutting southwards to end in the Jumna, near Loharee, a distance of fully 12 miles. The cutting at Kirthul is about one yard deep, and contained six inches in depth of stagnant water.

204. Kirthul has no bazaar, it contains no made way, its surface is all unswept; many manure heaps were seen amidst the houses; broken ground is pretty common about the village on all sides, and the broken places everywhere contain much of rubbish and filthiness. The floors of the houses are damp, and the houses themselves often partly ruinous; the ways between them broken.

The principal inhabitants are Jats, and, as a rule, rather fine looking men, and there is one puttee of Mahomedans.

There are 80 houses of sweepers in the village, and these people keep many pigs, which roam at large in the day time.

There are five or six chopals in the village, and they are the only respectable places in it. Trees are scarce, and the village has a rather bare aspect.

205. The land around the village generally is low, and in the rains much water collects on all sides, so that the people find it hard to go out of the village then, and they made great complaint of this—a loud and very general complaint. It was believed that the drainage cutting is useful in relieving in some measure this flooding on the west side of the village. But the great east water-hole, now evidently a permanent lake, rises and rises in the rains until it floods the village ways and softens the foundations of the houses. The inhabitants very much wished that it could be connected by means of an escape channel with the western drainage cutting. Before canal irrigation was introduced the water in the wells used to stand in the dry season at 40 feet from the surface. Now in the most important village well the water is 5 feet from the surface, and I found by measurement 25 feet in depth of water in it.

206. Spleen enlargement is a common condition. Palsy, paralysis, rheumatism are common complaints, of which I saw instances. At all times of the year much sickness afflicts the people.

207. I think it very important that a serious endeavour should be made to remedy this excessive amount of moisture in and around the site. I am inclined to think that the land in and about Kirthul was never suitable to canal irrigation—certainly the excess of water has gravitated there to an unusual extent. With water at 5 feet from the surface in January, it is pretty certain that it must be within a foot or two of the surface in August and September, a condition of course very prejudicial to health.

CHUPROWLIE.

208. Chuprowlie, inspected on the 11th of January, is also a populous village scarcely worthy the name of town. It is five miles south-west of Kirthul, and its site drains well to the Jumna.

It contains only two brick-built houses; the remainder are mud-built.

Its bazaar consists of two very narrow unmade ways, which cross each other, making a chowk. The shops are poor, the town everywhere quiet and countrified. There is a separate short street called Naya Bazaar, a well kept mundee about 40 yards square, and a small serai. The town site is fairly raised, the centre high; the natural drainage is good, and the excavations about the town are few and small.

A Seraogee community, inhabiting about 60 houses, reside here, principally about the mundee, and they have a rather good looking temple. The inhabitants are principally cultivators, and many bullocks are driven into and out of the town daily.

209. Canal irrigation extends to about half the village lands, but not quite near to the town. The water in the wells is 15 feet from the surface, and good.

210. The people looked very well; I heard no complaint of unusual sickness; a few persons with enlargement of the spleen were found, but the general opinion was that the inhabitants enjoyed a fair amount of health.

211. The town is not taxed for municipal purposes in any way; there are no public sweepers.

212. The town was noticed to be very filthy in many parts from the accumulation of rubbish and sweepings. I understood that the magistrate had recently ordered an improvement in this respect, but his order had not been obeyed.

There is a little school-room, being a mud hut, in the town; and a little Post-office receiving an average of twelve letters a day. In fact, Chuprowlie is a place of no importance, excepting inasmuch as regards its numerous population, who, by comparison with the people of Kirthul, may indeed count themselves well off in regard to matters sanitary.

213. If means can be provided, I think the public thoroughfare might be improved with advantage; certainly the law of cleanliness should be more respected, and especially in the Chumars' quarter, rather extensive and remarkably filthy. Perhaps a better school-house might be provided. The town seemed pretty full of playful children, but few boys attend the school.

KETHOR AND SHAHJEHANPORE.

214. Kethor, population 3,131, is a pergunnah-capital of the Meerut District, situated on the high road, rather more than half way between Meerut and Gurhmookhtesur, but it is a place of little importance, being really only a large village. Shahjehanpore, population 2,600, a large village, about a mile eastward on the same road, is I think a place of more importance than Kethor. The two places together contain a population of about 6,000, and taken together I think they are worthy of report. I inspected them on the 26th January.

215. Kethor is inhabited principally by Maheseera Mahomedans, being converted Rajpoots; only about one-fifth of the people are Hindoos, mostly of low caste. The abadee stands on the north side of the kunkur-made highway to Meerut; and facing the abadee, on the other side of the road, is a great water-hole to which all the south side of the town drains. To permit of this, four widish culverts have been made under the road, which is considerably raised. The easternmost culvert, either from not being sufficiently capacious, or its way being in part blocked by accumulated earth, is inefficient for its purpose, and at the eastern outskirt of the town in the rains the water is held up and has done considerable injury to the mud-built houses there. Of this there was loud complaint. The site of this eastern quarter is certainly low, but the principal entrance to the towns from the main road is there. It leads by a roadway, which must be all mud in the rains, to a bazaar in the form of a small square, surrounded by fifteen mud-built shops, and containing four trees, one to each corner. Its surface low and unmade, it is a poor looking place. From the bazaar place the town stretches westward in a line with the great road for a distance of perhaps 300 yards, the site rising as you go westward. And about the centre of the town is a low hillock, on which, when the village belonged to Rajah Nain Singh of Pureechutgurh, a mud fort stood, and then the hillock and its precincts was a respectable place. Now, all appearance of a fort has disappeared; the hillock has been used in several places by potters as a place to make and burn vessels; it is much dug into and broken, and is frequented as a latrine place, and place in which rubbish is thrown out. I have never seen the highest spot in a village so used before, or in such a disgraceful state. It is close hemmed by the houses, and it follows that the filthiest place in Kethor is in the midst of the abadee.

The houses of the town are poor-looking, many in bad repair, and at first sight seem to be all mud-built, but there are 60 brick-built houses of sorts mixed with the mud built houses. The lumberdar is building a rather fine brick house for himself, too, and there are four or five good looking masonry baithucks or chopals in different parts of the town.

216. No made roadway exists, and the unmade roadways are apparently never repaired. The principal mosque is old and ruinous. Taken all altogether, the town presents a miserable appearence, and the people look poor. Five chowkeedars are employed here, but no chowkeedaree tax is levied. No public sweepers are employed.

217. The town contains about ten good wells. In the well highest situated the water is 45 feet from the surface and is very good; in the lower wells, the water is 22 feet from the surface, and was said to be good, so that it was not considered necessary to take drinking water, in any unusual measure, from the higher and deeper wells. Rather less than one-third of the village lands are irrigated from the Futtehgurh Branch of the Ganges Canal, and since the canal was made the water in the wells has risen about 8 feet.

There are twelve houses of mehtars in the town, but the mehtars are not allowed to keep pigs, the ancestors of the existing zemindars having forbidden it.

The town site, excepting as before described, drains efficiently on the south side, by the roadways, and such cuttings as the water itself has made under the road, to the great unmade tank beforementioned; and to the north side to a second water-hole, almost equally large there. So that the town site lies between two large collections of water. But the site being in greatest part well raised, the abadee of the centre and western parts never suffer from flooding of water.

218. The one redeeming feature of Kethor is the new masonry school-house, completed last year. It faces the Meerut road, and has been very well built on a model plan, comprising one good sized room with a front verandah. I regretted to notice that it was not yet occupied. So only 20 boys are now taught at Kethor, because of the scantiness of the old accommodation, a place lent by the lumberdar. The opinion of the assembled zemindars was that when the new school-house was opened the attendance would soon increase to 50.

219. I think, for a place so poor, and perhaps over-peopled, as Kethor, the great hope of future prosperity lies in the education of the boys, so that the more promising may be able to go hereafter into the outside world to achieve something of fortune. And I hope the new school-house, really a very respectable building, may soon have a good school-master with a numerous class of learners.

220. I should add that very little attention is given to the maintenance of cleanliness in and about the town site. Collections of rubbish, being manure heaps of small size, may be seen in many places. But, as in all towns of Mahomedans, which the people here are,—although in appearance and by descent Hindoos—the practice of retiring well outside the abadee is properly observed, always excepting at the fort site, and of its condition the respectable inhabitants are ashamed, so that they wished me not to visit it.

The people looked very well, and children were seen to be numerous. There was no complaint of unusual sickness, and enlargement of the spleen was said to be uncommon. Of about 200 persons present one man confessed to this condition—the enlargement just discoverable by examination.

SHAHJEHANPORE.

221. Shahjehanpore is a large village, the abadee of which extends to both sides of the Meerut high road. The part of the village to the north of the road is less extensive, and is principally inhabited by Naees, Chamars, and Mehtars; the part to the south, more extensive, being old Shahjehanpore, the home of many pure Mahomedan Pathans, descendants principally of Abbas Khan who came from Cabul and settled in, if not founded, this village in the time of Shah Jehan. Hence its name I suppose.

222. Its site is level if not low, and the principal south part stands round a very extensive water-hole, quite 400 yards square, which the inhabitants call "the lake." This lake shows at its margins in two places evidences of a desire on the part of some person, in times gone by, to hem it with brickwork. The inhabitants know all about it. Unfortunately the intending benefactor died, and the thing came to an end. Now, with the exception of two isolated culverts, and a few feet of brick-wall fast disappearing, this "lake" is nothing but a ragged water-hole of great extent, containing a wide sheet of water, with much of mud and filthiness around and beneath it. To the east side is a disused pujawah, last used to make bricks for the canal, which apparently turned out bad in some part at least, and were made into soorkhee, a great heap of which even now lies behind the pujawah.

The abadee lies round three sides of the lake, the high road to Meerut margining it on the fourth. There is no efficient waterway from it, so in the rains it rises to the very borders of the houses, and overflows even in places, but that was said to be a rare occurrence. However, it is certain the surrounding country site drains into it for a considerable distance, and for its overflow only a certain amount of rain-fall can be necessary.

223. The principal and most numerous section of the community have the fine faces and beards so characteristic of the Pathans. And Shahjehanpore is peculiar in containing not less than five Havelees, large enclosures bordered by high red brick walls, each of which in former times contained quite a village in itself, in which the principal Pathans and their dependants lived. Then Shahjehanpore was considered a very important place One of these Havelees, the residence of Abbas Khan himself 230 years ago, has a rather fine stone carved entrance gate. It stands at the centre of the curving margin of the lake, and near to it also on the margin of the lake is a small mosque of the same period, still good looking and in fair repair. The outer walls of these Havelees are falling into bad repair; inside they contain a few mud-built houses, the home of the owner, generally in one corner, all the remaining surface being vacant and waste, or converted into a garden of principally trees. The owners hardly liked to show me the interiors, as I soon found on account of the evidences of poverty they presented, and there can be no doubt that these people, whose forefathers were of considerable importance, are now as poor as the majority of the Hindoos who surround them. One of the owners was *digging* out the bricks of his ancestral property for sale, and was loud in his regrets as to the hard fortune which necessitated that proceeding.

The mud-built houses of the people generally cluster about the Havelees on all sides, and are poor in description and lightly thatched. No roadway of the place is made or repaired until it becomes impassable, and the roads are much broken in places. Many ruined houses without roofs were noticed, formerly the residences of people now dead or gone away—especially of weavers, it was said.

No trade of any sort, or manufacture exists now; agriculture is the sole business of the place. Manure heaps, being sweepings, exist within the abadee, but no filthiness was especially notice-able anywhere.

The keeping of pigs is forbidden, as an old established Mahmedan custom, and the northern part of low caste Hindoos is in very fair order.

On the west border of the town there is a market place, being a shapeless piece of open land, with roofless mud huts placed without order on it. Market is held on Saturday, but is not important. The huts are used as shops, and are thatched in the rains, and there area few permanent shops at the same place. There is a small well kept serai bordering the Meerut road.

224. The water in the wells is about 15 feet from the surface, and has risen about 8 feet since the canal was made, and is not so sweet as it used to be. Only about one-tenth of the village lands are irrigated from the canal; some of the land is irrigated from wells; but the greater portion depends for its crops on the rainfall. It was said that much more land could be irrigated from the canal, if a certain Jal had been completed or perfected. The people seemed very much to wish this could be accom-

plished, as now that the spring level had risen in the soil below, kutcha wells could not be made so as to last for any time.

225. The people appeared to be in fair health, and children were seen to be numerous. But several persons with sallow faces were noticed, betokening a considerable prevalence of fever disease. And it appeared that for some years past fever has been unusually prevalent and fatal here, and especially during the past year, when many died from this cause. Amongst others, the Putwaree. Enlargement of the spleen was said to be a common condition, not less than 50 of the residents being so affected. But of those present, no one would confess to being afflicted in that way.

226. The village contains a Government school-house, being, I think, a place lent by one of the zemindars. It is fairly suitable for the purpose, with hay spread down for the boys to sit on, but the attending class is not numerous. At a small Mosque in the village a Mahomedan school is in existence where I saw several boys learning their Koran. They carefully hid the books away in their clothes as I approached, and I have noticed the same thing before. But cannot be sure whether this hiding away of the Koran is due to a belief that it is not fit that the holy book should lie open before a christian man, or whether it is due to a belief that an officer of Government would not think well of boys who read the Koran.

227. I think, with reference to the undue prevalence of fever disease here, some inquiry should be instituted into the condition of the site after unusually heavy rain. And if it is true that the lake waters extend very much, then I think some means of drainage to prevent this should be contrived. It would also be advisable to require as to the result of the canal earth-works in the neighbourhood, on the outflow of water from this lake when it does overflow.

PAREECHUTGURH.

228. A town in the Meerut district, half way between Mowana and Kethor. It contains a population of 3,800, mostly Tuggas, Bunneeas, and Brahmins. I inspected it on the 25th of January. Pareechutgurh was formerly the place of residence of a Goojur Rajah, a relation and friend of the Landhoura Rajahs; and the zemindars even now pay 10 per cent. of their profits to the Landhoura Ranee—a young widow without issue.

229. The principal part of the town stands on a well-raised hillock, on the highest point of which in the midst of the houses, is the former Rajah's brick fort, and adjoining it his palace. Both good looking structures, in fair repair. The palace is untenanted now, and the fort has been converted into a thannah, for which purpose it answers admirably. The houses of the town, mostly mud-built, with a sprinkling of brick houses intermixed, spread down the hillock on all sides around the fort; and formerly the houses on the hillock were surrounded by a mud wall, remains of which can just be traced now. Then the town had gates, and was counted a place of some importance; now no semblance of a gate remains. But from the foot of the hillock, on the west side a bazaar of considerable extent has spread out, and on the east side a very considerable quarter of chumars and mehters has grown up. Altogether Pareechutgurh may be considered as a model Hindoo town of small size, as regards the distribution of its inhabitants.—The Rajah, landholders, and cultivators on the hillock—the Bunneeas, and other respectable Hindoo traders to the west, the direction of the prevailing wind.—The people of filthy habits to the east.

230. As usual, an open space fronts the Rajah's house; to one side of it is the Rajah's chopal, resembling a small barrahdurree, with a wide well-raised terrace in front. This is now the school-house, where 26 boys are taught, and it is a highly respectable place for that purpose. A rather long brick-paved way in fair repair leads down from this open space to the south outskirt of the town, where formerly it ended at a

gate which had a roadway leading up to it. Now, where the roadway was, the site is deeply fissured by the rainfall drainage of the south side of the town, which runs down the paved way, and also comes out through the broken mouth of a great drain to one side of the gate site. As usual where, from neglect, land in the neighbourhood of a town is allowed to fall into a broken state, the holes and fissures here are used for the deposit of sweepings and rubbish generally. On the south side, at fully 400 yards, however, from the town there is a large collection of water, almost a lake, and no doubt the great mass of the superfluous rainfall of the town and neighbourhood collects there.

231. From near the centre of the paved way mentioned, a narrow roadway goes down westward, with a gentle slope, and soon opens out into a widish bazaar road—brick-paved, with good brick-built shops on each side—to end in an open gunj-like space. Around this open space, which, however, is not a gunj but part of the bazaar, are good brick buildings, being Bunneeas' shops, some quite new and double-storied, evidencing an increase of prosperity to some at least of the people of Pareechutgurh. The bazaar continues for a short distance beyond the open space as an unmade way winding in a northerly direction. Altogether, for a town so small, this bazaar has a creditable appearance, with some business air. In the Rajah's time, however, more rich people lived at Pareechutgurh than now, and then a considerable trade in country produce existed, which, it was said, had departed entirely in later times. A market is held every Monday, and many people from the surrounding villages frequent the town then. The bazaar way and open space afford good accommodation for the market people.

232. A house-tax, realizing Rs. 108 a month, is collected at Pareechutgurh. From this, seven Chowkeedars one Jemadar and four public sweepers, are paid, the expenditure with the Bukshee's salary, being about Rs. 50. Therefore it is reasonable to suppose that a considerable balance for town improvements must exist somewhere.

233. As I have said, the eastern quarter of the town, below the hillock, is in great part inhabited by chumars and mehters. The chumars numerous to the south, the mehters, 40 houses in all, to the north. The mehters used to keep about 100 pigs; but two months ago the zemindars petitioned the Collector for the removal of the pigs, which were a nuisance and injured the neighbouring crops. And accordingly the pigs were banished to an outlying hamlet of the town. This is no doubt true, as I saw the empty places, holes underground, were the pigs used to lodge at night. The mehters did not, apparently, count this removal of the pigs as a great grievance, for the general public opinion was against their being kept in the town, or its immediate neighbourhood. Certainly the mehter quarter was clean and well kept, contrasting very much in this respect with the condition of the same quarter in Mowana town last inspected, and I think in all probability the absence of the pigs accounted for much of this. I think it is to be regretted that the Mowana zemindars do not follow the example of their Pareechutgurh brethren. I know there are one or two outlying hamlets in the Mowana land.

234. Standing as Pareechutgurh does in greatest part upon a hillock, I need scarcely say the natural drainage is very good. As usual there are water holes, being excavations of brick-making operations in times gone by on all sides of the town, in addition to the principal water hole on the south side. But these excavations are comparatively small. Their banks are frequented as latrine places. No one of them is quite near to the town, and if their immediate neighbourhood could be cleansed daily,—not by collection of impurities, but by immediate burial where found—they would answer very well as public latrine places, for the people with whom we have to deal. Now they are filthy places—not to be visited rashly.

235. The town itself is very well-kept indeed; certainly the sweepers had been hard at work before my entry, but I have no doubt its general condition is good as to cleanliness. The manure heaps are well outside the abadee, and are either so small or

so well put out of sight as scarcely to attract attention; and it is a fact that Pareechutgurh, both in its abadee and outskirts, is, as an almost purely agricultural town, creditably kept and managed. Its roadways, as a rule, are kept in fair repair. Its mud houses are fairly well leeped and in good repair. Of course many bullocks come into and go out of the town in the evening and morning; for no Hindustanee cultivator will trust his bullocks out of his sight at night time, and the public roadways suffer accordingly. But there is no disgracefully broken way or collection of mud in the town, and the neighbourhood of the wells is not made unpleasant by the existence of filthy pools as at Mowana. Seen from the outside country, the town has rather a picturesque appearance; its high site lifting the houses well above the sea of beautiful green wheat, and yellow-flowering mustard, which hem it on all sides now.

236. The Futtehgurh branch of the Ganges Canal passes the town to the eastward, and some portion of the land is irrigated from it; some parts lie too high for this purpose, and are irrigated from wells. The drinking water in the town is very good, especially that of the wells situated in the highest part of the site. Near the Rajah's palace is a remarkably good well, the water of which was praised, and is much drunk.

237. The people, of whom as usual a great crowd followed me through and about the town, looked remarkably well. Children were seen to be very numerous.

Autumn fever is the only general complaint, but enlargement of the spleen seemed to be an unknown condition.

No part of the town ever suffers from flooding of water, as the great south collection of water drains to the eastward.

TOWNS OF THE BOLUNDSHUHUR DISTRICT.

238. The towns of the Boolundshuhur District, of more than 5,000 inhabitants, are—

	Population.
Khoorjah, ...	24,584
Secundrabad, ...	15,968
Boolunshuhur, ...	15,284
Anoopshuhur, ...	10,644
Shikarpoor, ...	10,182
Jehangeerabad, ...	8,875
Debhaee, ...	7,167
Jewur, ...	6,976
Syanah, ...	5,966
Gulaothee, ...	5,141

KHOORJAH.

239. Khoorjah is the important town of the Boolundshuhur District, and it increases in importance. In 1865 the population was 24,584. By the census just completed the population is 26,898. The town government has been in the hands of a Municipal Committee since March, 1866. The annual income is about Rs. 21,900, of which Rs. 20,000 results from an octroi, Rs. 12,000 from the rent of nuzzool property, Rs. 250 from the sale of the town sweepings, and Rs. 450 the fees and other proceeds of puraos or halting places for bullock carts—in all a very fair income for a town of the relative importance of Khoorjah. Of this total income the sum of Rs. 12,960 is expended in wages; it follows that about Rs. 9,000 remains for town improvements—a rather meagre share of the whole.

240. I inspected this town on the 2nd and 3rd of March.

The town lies between the Grand Trunk Road and the equally great road which parts from the Grand Trunk Road, about a mile south of the town, to go up to Meerut, so that both on its western and eastern borders it possesses the benefits of a grand highway. Also the East Indian Railway has a Khoorjah Station, but it is 3½ miles distant from the town, and the people speak of it as the station at Moujpoor, which is its correct definition.

Indeed, no town in the Boolundshuhur District is well served by the railroad, which runs straight through the fields, so that no stranger travelling by it can have the least idea of the fairly busy and populous towns which belong to this part of the country. I notice, whenever my route lies past them, that the stations look sad and lonely amidst the crops, with a stillness of death about them. I gather that no Native of these parts looks upon the rail as a local convenience, or ever travels by it, unless he has to go far off—a thing he dreads and avoids to the utmost. Merchants and great men use it of course to increase their gains. But the common travelling public—people mostly resident in towns—walk or ride in bylies, as ever they did from town to town, or, market to market.

I believe if the line, where it enters the Boolundshuhur District to go straight to Ghazeeabad, had been carried due north to Khoorjah and Boolundshuhur, and then inclined westward to Secundrabad, serving all these towns closely—and so on by Dadree to Ghazeeabad—the additional five miles of distance would now be found to have been line wisely made. For undoubtedly traffic would have increased much beyond its present limit, as a very considerable number of people pass habitually between the towns mentioned, as I have seen. And as time passed, travelling by rail, with its advantages, would have become a habit which it never can be now. Then the stations would have been ornaments to towns and fairly busy places as railway stations ought to be, and the prosperity of the townspeople, and of the district generally, would have been promoted in greatly increased ration—the advantage after all best worthy of consideration.

241. The site of Khoorjah is slightly raised in the centre, pretty level around that, but decidedly low in the outskirts. The site is fairly extensive, yet the houses stand very close together, and the important streets and business-places are tortuous, narrow, and confined. One new kunker-made straight road has been opened through the northern quarter of the town leading from the Grand Trunk Road to the Meerut road, but that is not a business part of any importance. And another road of the same kind joins those two great roads on the southern border of the town, passing the Tehseelee on its way, but it is quite outside the town.

The deep and wide side-drains of masonry which border the roads generally outside the town are a mistake. They are expensive to make, and serve no good purpose a quite shallow saucer drain will not serve. Also they are traps to carts and passengers, and especially in the evening and night time.

242. From the Grand Trunk Road,—which passes quite within the western border of the town, having an outskirt of houses of poor people westward of it,—two principal ways of entrance pass into the town east ward. One leading to the market-place the other to the gunj, both of which, though fairly wide, are tortuous.

The road leading to the market-place soon opens into a space of no great extent with masonry platforms along its centre way, and poor shops around it. A market is held here every Thursday and Sunday, but the market-people throng the surrounding streets as well. Immediately beyond the market-place the roadway opens again into an angular space, also of little extent, where a new tehseelee school-house of fine appearance was built, but its foundation failed, and it had to be thrown down. Now only the foundations remain; they were seen to be opened out, and the work of perfecting them proceeding. And it is intended to rebuild the house here. The building will in good

part fill the space allotted to it, and when it is completed its precincts will consist of the busiest part of the town. How the school business will be carried on properly on market days is hard to understand. From the school space the main bazaar passes eastward as a narrow rather tortuous roadway, well made with kunker, the shops rather poor. To one side of it in the midst of the town is an important Seraogee Temple, the one famous building of Khoorjah.

This temple appears outside as a much-ornamented massive structure, cone-shaped, crowned with a gilt ball and point—all high-raised on a stone terrace. Inside, it is a square chamber, the roof and walls painted in the brighest colours and gold, representing principally scenes in the life of Ram Chund. In the centre is an extremely elegant shrine for the idol Parisnath, the Guatama-like figure worshipped by the Seraogees—open work of carved marble enters much into the formation of this shrine, which is besides made very brilliant with painting and gilding. There are about 50 houses of Seraogees in Khoorjah, the heads of which are mostly well off. The two owners of the temple are the richest merchants in Khoorjah, carrying on so extensive a business as even to have, it was said, agents in China. They have spent more than a lakh of rupees on this temple.

243. In the neighbourhood of the temple a remarkably-tortuous way, just now kunker-made, comes up from the south to join the main way. It starts originally from the Tehseelee as a straight broad way; but once in the abadee it winds amidst the houses following the course of the old lane of bygone years. There are very few if any shops on this way, and no traffic of consequence.

The main way pursuing its course eastward nowhere straight for any distance, ends, so soon as it gets beyond the houses, in a fine wide kunker-made way leading to the Meerut road.

Besides the tortuous way described as coming up from the south, there is another exactly similar tortuous way in the north-eastern quarter of the town admirably made with kunker, and margined by neat, shallow, brickwater channels. But the channels pass in and out, in angles and curves, to suit the angular outline of the valueless mud-built houses which border the lane.

I believe this fine making of the old lanes, without alteration as to shape, is a minor form of improvement which the town authorities will have cause to regret hereafter. From a sanitary point of view the solidification and drainage of the surface of the public ways is a great gain. If, at the same time as this is done, the way is straightened to the great help of ventilation the gain is doubled. A straight way costs less to make, is less worn by traffic, and is certain to result in improving the value of adjoining property. Even, in an improving town like Khoorjah, might, in course of time, lead to the opening of shops along its course.

244. The second entrance to the business part of the town from the Grand Trunk Road, fairly wide but tortuous in course, leads to the Gunj, which commences as an open space of small extent, angular in shape, with shops on all sides. The shops are in process of improvement—one grand shop in a fine stone-built house has just been completed—others of a like kind or building, but poor thatched-hut shops remain yet in several places. From this space the Gunj continues northward as a wide street of shops which soon turns eastwards, and then again southwards, so that this part of the Gunj partakes of the nature of a square having houses in the centre. The shops of this part are decidedly poor, their roofs the poorest of old thatches. The part described as going southward is rather an open space, and in connection with it is a pretty extensive Purao, the surface of which is undrained. Many carts were seen to be halted there, and I suppose it is well placed as regards the convenience of the shopkeepers of the Gunj. But a Purao in the centre of a populous town is not a wholesome thing.

A large and much frequented well near to the purao was seen to be surrounded by a wide pool of water and mud—altogether the drainage of this part of the town

much requires attention. The Gunj sends off two narrow ways southwards—one to join the market-place, the other to join the main bazaar way. One of these is a bazaar way of some importance.

245. All the ways described above are well made with kunker, arched in the centre, and low at the sides. Indeed, I think modern improvement in Khoorjah is principally apparent in the kunker-made ways. Beyond that nothing has yet been done to change its appearance, or open it out, although the grand high ways on each side of it seem to tempt to that endeavour.

I was glad, however, to notice that nothing has been done here to encourage the building of fine shops in a new place, because I am sure, successful and popular improvement lies in the direction of improving the existing business-places in a town. At Khoorjah I was rather surprised to notice that it did not seem to have occurred to the town authorities that a better-shaped and more commodious market-place would be advantageous, although the school site would provide the space, and the removal of a few dyers shops, which intervene and are a nuisance, would throw the two spaces into one. Certainly in a town so crowded with houses as Khoorjah it would be a wholesome practise to endeavour to increase, rather than decrease, the spaces remaining unbuilt upon. As regards the school-house, much required as I shall show hereafter, it would be from all points of view better placed in the outskirts of the town. I think the neighbourhood of the new dispensary, and the new Municipal Hall, on the Great Trunk Road, would be a good and highly respectable locality for the school. There would be no question of good foundations there, and the children would of necessity have the benefit of fresher air there, and the school-master the advantage of a quiet neighbourhood. Then, too, the school might have well-planted precincts and perhaps a play-ground.

The Gunj, too, is a place well worthy of improvement. I think it is slowly improving, and in the best way, by the spontaneous effort of the residents. Yet something of municipal management for the improvement and preservation, if possible the increase, of such open space as may be available, is very desirable here. I know, in examining this Gunj, my impression was that much might be done in this direction to make it a more convenient place of business, with the result, too, of improving its sanitary aspect.

246. The northern and eastern parts of the town is inhabited mostly by Mahomedans, who live in brick-built houses set very closely together. The heads of families here are mostly engaged in cultivation, or employed as servants or officials. The southern and western part of the town is mostly inhabited by Hindoos, and the trade of the town seems to lie in their hands.

This trade consists principally in the collection and export of Cotton, Kussoomb (safflower), Indigo, Indigo seed, Goor, Sugar, Grain, Rice, and Ghee. The trade in Cotton is especially important, and there are not less than eight cotton presses in the town, in some of which the work of pressing cotton was seen to be in active operation. The soil of the eastern and southern parts of the Boolundshuhur district is very favourable to the cultivation of Kussoomb, and the quantity and fineness of the plant to be seen in the cultivated area of this part of the Province forms its peculiar characteristic, certainly I have never seen anything like it in any other part of the Province. Besides the business-places already described, there are ten Khutries in the town, being private business-places of small extent without thoroughfare. In one of these Khutries I was rather surprised to find the owner a high-caste Hindoo, packing Ghee in English beer-casks for export to Calcutta—a noteworthy triumph of convenience over caste-prejudice. The idea that the Hindoos of Calcutta would consume the ghee afterwards, seemed to be cause rather of merriment than sorrow.

I should not omit to mention that besides the great feature of road-making, other minor evidences of improvement are apparent at Khoorjah. The town is now lighted

at night, in all the more important parts, by 200 oil-lamps—lighted when there is no moonlight. The Octrói offices, eight in number, are in greatest number most durably built of masonry, into which kunker blocks have been worked to form the more prominent and important parts of the design. They are ornaments to the town on all sides.

247. The line of the Grand Trunk Road, taken as a whole, is a region of rather dreary appearance. At one part, before mentioned, the building of a Municipal Hall in the same style as the Octroi offices (but larger, so as to provide one good-sized room, properly furnished and highly respectable in every way) and of a Dispensary, a durable building in plain brick with good attached offices, something has done by way of redemption. But the general length of this noble thoroughfare is noticeable mostly, on both sides, for irregular diggings of road-makers, and for the poorest of mud-houses. On the town side nothing of the important parts of the town can be seen because of the crooked ways of entrance. An important Tomb of Mukdoom Saheb, 400 years old, its walls much sunk down into the earth, and surrounded by a burial ground; and a mud-wall Purao, entered by a narrow bridged road, are the features principally noticeable here.

248. The road itself is high raised on earthwork, and on the town side a remarkably deep open brick culvert running for some distance in a line with the road has been constructed for the receival of the rainfall drainage of the town, which in greatest measure has to find its way under the road. Culverts have been provided for this purpose. At the principal culvert, a cutting called here the Gundah nullah (which ought to be called Am-rao-e-barish) commences. Being called Gundah nullah, of course, the inhabitants put it to gundah uses, yet I was surprised to notice, that the sweepers concerned had swept a large collection of impurities under the bridge, and banked both ends with earth to keep it there out of sight. The result being a nuisance of the first class under the very Grand Trunk Road itself. The Gundah nullah goes straight west in the direction of the Khurwah Nuddee—a Dhubur or natural drainage channel of the west side of the Boolundshuhur District, which passes four miles westward of Khoorjah. So far as I could judge by inspection in February, there is nothing in the appearance of the Khurwah to warrant its being called a Nuddee. It appeared as a low-lying strip of country much broken by passing rainfall in the season of rain. The local opinion is that the Gundah nullah has a slope of only 1 foot in four miles. My impression is that the level of the Khurwah bed more than one foot below the level of the Khoorjah outskirts generally. Such parts of the nullah as I saw, were admirably made and carefully kept as a plain cutting of considerable depth at the commencement, but its bottom is not durably made in any way. Such slope as it has is hard to maintain, and in the rainy season water sometimes a yard in depth rests in it. Then the proper drainage of the town site and outskirts is impeded, and much of moisture collects in and about the town. In its course the nullah has to pass under a rajbuha of the canal, and under the earthwork of the railroad. I rather think a series of truthful levels would show that it is possible to effectually drain the western side of Khoorjah to the Khurwah. As matters now are, a very extrordinary amount of rainfall drainage collects in shallow excavations, which become great water holes for many months of the year, on the western border of the Grand Trunk Road. The Gundah nullah as now existing does nothing to remedy this, as it receives only the rainfall running from part of the town proper.

249. On the eastern side of the town, the drainage imperfection and difficulty is more glaring still. The water in the rains collects in a wide sheet through which the Meerut road passes—even in February the amount of water there is considerable. Undoubtedly much of excavation has been done here in times gone by, and I daresay the formation of the Meerut road helped in this matter. Nothing has been yet done by way of remedy for this state of things, and to the casual observer the remedy is not easy. Southwards, the direction apparently in which the water wishes to go, the land rises considerably, as a low sandy hillock.

Four miles from the town eastward is the Kalee Nuddee, but between the two rises the great embankment of the Ganges Canal. I rather think the site of

Khoorjah is on the top of the watershed which slopes westward to the Khurwah and eastward to the Kalee, and that like Secundrabad the natural drainage lies in both directions. It is possible that the comparatively recent completion of the public works in the neighbourhood may have interfered with this in both directions. Certainly it is very uncommon to find the site of any town founded by Mahomedans, (as Khoorjah was) decidedly low with reference to the surrounding country.

It would at least be interesting to determine the relative heights of the Kalee bed and the Khoorjah outskirts at the Meerut road.

250. The conservancy of Khoorjah, with the notable exception before mentioned, appeared to be admirably affected. As, indeed, it should be, with a staff of 50 public sweepers, whose labours are directed by an Overseer. Seventeen public latrines, being commodious enclosures, have been established in the outskirts on all sides of the town, and are much frequented. Their cleanliness is carefully effected. Formerly these places were earth-built throughout, now some of the older places have been replaced by movable mat enclosures, with advantage no doubt. They are undoubtedly principally instrumental in procuring a condition of cleanliness very noticeable in the outskirts of the town, In the town itself, in all places accessible to a visitor, the most perfect state of surface-cleanliness prevails. The impurities and sweepings collected, are utilized as manure in the fields about the town and as fuel in the brick-kilns; and they have a money value, which is a most important help to their perfect removal and proper utilization. Spaces on all sides of the town are set apart for the deposit of sweepings, the removal of which for utilization proceeds constantly, and nothing objectionable could be seen in any of the spaces inspected.

251. The limits of the Municipality are defined by masonry pillars, and the digging of earth for removal is forbidden anywhere within the boundaries. This is a most important rule, and should be strictly enforced; the result in a few years will be, that the site as a whole will rise, to the great help of drainage generally. This gradual rise might be helped with advantage, by the filling up of shallow excavations of small extent which are not hard to find in many places. At one such place the zemindar to whom it belonged said he would raise and level it, if permitted to build on it. I think private enterprise in this direction should be encouraged, earth for building purposes being taken with discretion only from higher places outside the limits. There is a call for increased house-accommodation in this town—a sure sign of prosperity.

252. The town lands are pretty generally irrigated from the canal, with the result as usual of raising the water in the wells, which now stands about 15 feet from the surface in the dry season, and ten feet in the rains. Formerly the depth from the surface was about 24 feet in the dry season and 18 feet in the rains. With the change of level the nature of the water also has changed, being harder, the inhabitants call it heavier, and say the food taken with it is less easy of digestion than formerly. Fever disease, as might be expected with so ill-drained a site, is very common in and after the wet season; but spleen enlargement is very uncommon. Of 140 boys assembled at the temporary school-house, not one could be found to be so affected.

253. This school was noticed to be a poor place, much overcrowded, consisting of a courtyard with small rooms around it, so small that some classes of boys had to sit in the courtyard. Another school recently established, with 37 boys nearly all Mahomedans was seen; there the accommodation was sufficiently commodious, although mud-built. Certainly a good school-house is very necessary at Khoorjah.

254. The Dispensary, before mentioned, was seen to be a creditably kept and apparently useful institution.

It includes accommodation for in-patients to whom food as well as medicine is supplied. Some cases of ulcers and others of men in a general state of misery were

seen, and I think it well deserves the name of charitable dispensary. It has been admirably built throughout on a good site, I think under Mr. Daniel's guidance.

A fair supply of medicines were seen, but the resident Native doctor pleaded for a fuller supply of English medicines. I think he was right, and as the municipal authorities set apart a sum annually for the purchase of medicines, I trust they will spend it for the purchase of really efficacious English preparations.

For examrple, no carbolic acid could be produced, although in all probability that would provide a remedy of great value for the sores examined in the in-patients' ward.

A detached room for the accommodation of cases which cannot well be admitted to the general ward is in existence here. It was seen to be tenanted by a zemindar's wife with a sore leg, the result I am afriad of diseased bone. Her husband lodged her there for treatment when he would not have left her in the general ward for women; and that is exactly the kind of case for which this private accommodation is so necessary.

255. About one-third in all of the population at Khoorjah is Mahomedan, therefore, I need scarcely say, a considerable quantity of meat is consumed.

The slaughter places used to be in the butchers' quarter, in the town, and were of course a nuisance. Recently this business has been provided for outside. The new slaughter-house is the best establishment of the kind I have ever seen as provided for a Native community. It consists of a good sized yard enclosed by a high masonry wall, and is entered I think by a screened doorway. Down the centre and across one end is a good masonry drain for the receival of blood and other fluid impurities. At the time I saw it, 14 calves had just been slaughtered, but the accommodation was amply sufficient, even though more butchers had desired to be at work; and I must say this important matter has been taken in hand, at Khoorjah, in a most efficient and praiseworthy manner. I regretted to notice that the resulting impurities appeared in some measure to be swept out through a hole in the wall to a low place adjoining, which should be levelled. There should be no hole in the wall, but iron buckets should be provided for the removal of impurities which should be buried in a trench daily. These things are mere matter of routine, and when once the butchers or persons whose duty it may be, have become used to the new method, all works smoothly, provided the means are furnished.

256. Although I have not been able to write in terms of praise regarding this town in all things, yet I am fully sensible of, and bear willing testimony to, the existence of an active spirit of improvement there, which has already accomplished much and will in time do more. I talked much with the people during my stay at Khoorjah, and on no point received more positive or general statements than concerning the satisfactory condition of the town now, as compared with its state before a municipal authority was established.

And I should like to add, that I am persuaded this movement of town improvement is extremely popular. The advantage to person and property concerned therewith is fully appreciated, and I believe our towns fell into their formerly deplorable condition—not from the ready will of the people—but because of the defective state of town management and government. I think when the governors and people of good sense in authority lived in the towns they were kept in better state. When the resident authority came to be the Kotwal of later times, the knowledge to guide and the good sense to encourage improvement was rarely present. The cities and towns were taken to be abominable places in which no gentleman could reside, and little if anything was done to protect the right thinking and respectable inhabitant against the encroachments, filthy habits, and general carelessness of the many ignorant wrong-doers.

The establishment of a municipal authority encouraged by Government has supplied the necessary remedy. It of necessity brings the Magistrates nearer to the towns. I notice that the younger men, who are growing into Magistrates, talk of the towns and interest themselves about their improvement, in a most hopeful way.

The result, I believe, will be, that before this generation has passed away, the towns will have become a credit to the country, perhaps in some instances emulate the fields as a glory of the land.

SECUNDRABAD.

257. Secundrabad is a town of the Boolundshuhur District, situated about 10 miles west of Boolundshuhur. It contains 16,000 inhabitants, of whom about one-third are Mahomedans.

A considerable amount of business centres at Secundrabad especially as concerns the collection and export of country produce; for which latter purpose the Grand Trunk Road, which passes through the western borders of the town, is most convenient. The East Indian Railroad does not serve the purpose so well, the station being four miles distant from the town. And I believe here, as in other places where the same difference of accommodation exists, the road competes successfully with the rail, although the cost of carriage by the former is much greater.

The Grand Trunk Road coming up from the south on its way to Delhi, skirts the principal portion of the town on the west. But west of the road also there is a considerable mohullah of the town, mostly inhabited by people of the lower classes, yet a few rather good shops also line the road on that side.

However, the town proper may be said to stand on the east side of the great road, which sends off a branch, southwards of the town, to reach Boolundshuhur. And again, a narrower branch, northwards of the town, to reach Gulaothee, but this last is a kunker-made road only for a mile or two beyond the town.

258. From the Grand Trunk Road the town is entered by two roadways, both narrow and tortuous and unmade, and both leading to the principal bazaar way which runs from east to west, and is crossed about its centre by a bazaar way running pretty generally from north to south. Where the four ways meet, and they are all narrow and more or less tortuous, there is a widening of the public way called the chowk, which affords more convenient space for business purposes.

The northern branch of this Bazaar of four ways, called Bura-bazaar, passes to the Mundee or Madho Dass' Bazaar, which is a long fairly straight roadway extending from the Gulaothee road on the north-west to the Boolundshuhur road on the south-east, before mentioned. This is by far the most important way in the town, having a respectable commencement, course, and termination; whereas the ways of the Bura-bazaar, end indifferently, as broken tracts in the surrounding outskirts.

All the Bazaar ways above described, are paved with kunker, and drained on each side by saucer drains.

The houses lining them are brick-built and in good repair; some double-storied. The shops of the Bura-bazaar especially,—for that is the real old centre of the town,—are good, and are fronted by a well raised stone terrace, which arches over the saucer drain beneath, and gives an air of finish and neatness to the streets, notwithstanding their narrowness and irregular course.

259. Within the angle formed by the northern and eastern branch of the Bura-bazaar, and behind the houses there, there is a large Gunj, consisting of a remarkably wide open space surrounded by poor-looking tiled or thatched shops, some ruinous. The enclosure surface is uneven, undrained, the narrow entrance ways uncared for. Yet

with all this appearance of neglect, a very considerable, if not the chief, business of the town appeared to be transacted there; for it is to the Gunj that the cotton, goor, grain, sugar, rice, salt, and cloth, in which the merchants of the place trade, principally comes, and they may be seen there in considerable quantities. The well in the centre was principally noticeable for a great pool of mud and water about it. Of four trees, which once graced the four corners, three languish for want of care, and one is dead. I do not think I know any town where the Gunj, so admirably placed as this, with reference to the possibility of making it the chief attraction and ornament of the town, has so poor an appearance. Its site is slightly raised, and being undrained, it follows, that in the rains it must pour a considerable amount of water into the neighbouring streets.

I think I understood that before the mutiny year this Gunj was a more respectable place. In that year the Goojurs of the surrounding villages looted the town, and many houses were burnt, and the buildings of the Gunj especially suffered. If that is so, certainly the town itself, and I saw all the streets and lanes it contains, and the outskirts all round, presents little evidence of those miserable days now. New brick-houses were seen in many places, bricks are being extensively made in several of the brick-kilns outside the town, and the place presents a fairly prosperous aspect. Only the Gunj calls for much improvement, and that appeared to be the general public opinion of the place; but it seemed, that the zemindar to whom it belongs, did not desire to spend money for its improvement.

260. The Madho Dass or Mundee Bazaar is not only of more importance as a wider and straighter thoroughfare, but as containing the Dispensary, School-house and Serai, in different parts of its length.

The Dispensary is a modern building of two rooms surrounded by a verandah, with a clear precinct bordered by a low ornamental wall of open work. The building is highly respectable in every way and is intended for the accommodation of out-patients only. The ornamental wall is built in good part of peela bricks and consequently will not last.

The School-house is a native house of four small rooms, around an open centre in the upper floor, where the school assembles. The rooms are reached by 13 narrow steps, and were seen to be much crowded by 140 boys, of whom 50 were Mahomedans. Really the best attendance I ever remember to have seen at a Tehseelee-school in a town of this size, and very creditable, indeed, to the good old schoolmaster. Every thing was in fine order, each class separate in its little room, the business of education going on with an appearance of great reality. But the air in the rooms was unpleasantly close. I understood that a new school-house is to be built at Secundrabad, the town authorities having voted Rs. 2,000 in aid of it.

The Seraie is an open space of some extent through which the roadway passes. Some of its huts are ruinous, and it is not apparently prosperous. A rival establishment on the Grand Trunk Road outside being more attractive to travellers. This old Seraie appears to be principally of use as a place of residence for 20 families of Bhutearas; and as the Bhutearas of the old and new Seraies are all of one brotherhood, not much real loss has accrued to them by the change.

On this same road, too, there is a Mission-school and Church-place—a wretched mud built structure of the meanest appearance—contrasting quite sadly with the many good Mosques and Shewalas of the town in other parts.

261. A municipal government was granted to this town on the 16th of May, 1872, with power to raise funds by octroi. The income at present is about Rs. 830 per mensem, and of this about Rs. 500 are expended for wages, which seems rather a formidable beginning in that direction. But to bring the expenditure even to that figure 10 chowkedars, out of 50 formerly employed, have been dismissed. However, I think it

may be hoped that eventually about Rs. 5,000 may be available yearly for public improvements, and a good deal may be done with that sum profitably expended.

The conservancy of the town was seen to be admirably performed everywhere. In the town cleanliness prevailed to a quite remarkable extent, only in a few quite narrow partition spaces between houses hard for a man to get at, could anything objectionable in this respect be noticed, and this is scarcely worthy of mention. But the fact, that everything of impurity, which might collect in any part of the town easily reachable by a stranger, is swept up and carried out of the town, admits of no denial. The Malees of the neighbourhood—and there are good vegetable and tobacco gardens about the town—pay Rs. 100 a year for the resulting manure. Such impurities as they do not want, or will not receive, are carried away to the brick-kilns to be consumed as fuel.

Twenty-two public sweepers are employed in this work, and their work isevidently well controlled by the recently appointed Overseer.

262. The saucer-drains at the road sides are durably made of kunker blocks, they are maintained for the removal of rainfall only, and were seen to be as clean as the roadways themselves. Six public latrines, situated in different parts of the outskirts, are in existance here; they are built of mud throughout and are remarkably capacious. They answer very well for their intended purpose and are much frequented. The resulting impurities are burnt in the brick-kilns. Their cleanliness was seen to be well-cared for by the mehters attached to them.

263. The site of the Town is nearly level; certainly it is nowhere so high as the surface of the Grand Trunk Road outside, which is raised on earthwork. But Secundrabad stands on the top of the watershed of this part of the country I think. There was no complaint of trouble from flooding in the rains, and there are no extensive collections of water anywhere in the outskirts of the town.

Excessive rain drainage flows westward towards the Jumna and eastward towards the Kalee Nuddee, finding its way as best it may through the intervening country.

Around the town there are in all 18 excavations, apparently the result of brick-making of other days, but none of any great extent; and about the town on all sides there is a region of broken, generally uncared for, land of no great width. Excepting on the south side, where it is wide and much broken into heaps, having been the site of the old gunj, it was said, now disappeared.

264. The outskirts of the town were seen to be well kept as to cleanliness, but nothing has yet been done to give to them the same appearance of improved management so apparent in the town, or to ensure to them a condition of speedy dryness after heavy rainfall. In some part, the town is girt by an unmade roadway. I do not think it would be difficult to continue this roadway all round, and if trees could be planted along the line of roadway, the result would be an outside finish the town much requires. Then all small excavations might be filled up, for which purpose there is pujawah earth in abundance near to the town, and the surface of the outskirts levelled generally. The result of these improvements—and if skillfully managed, they should not be unreasonably expensive—would be, an extraordinary change for the better in the appearance of the town as a whole, and perhaps a change for the better in the general health of the inhabitants.

265. This levelling and reclamation of the surface, is much required along the course of the Grand Trunk Road. I must say the road-makers there appear to dig hap-hazard for the earth they require for the repair of the great road. The result being shallow excavations of many shapes and sizes, giving to the line of road, which should be the neatest and best kept part of the town site, a generally ragged and disreputable appearance. And besides, these excavations hold much water. It

was the opinion of the local Hukeem that the resulting increase of moisture so near to the town, during and after the rainy season, was one cause of the prevalence of fever disease then amongst the inhabitants. I think this careless digging of the road-makers ought not to be allowed. The rain drainage from the town site is passed under the road by means of four culverts, and I think the digging for repairs should be made to result in a properly levelled water-way running along the road side on the east from culvert to culvert, to facilitate the speedy passage of water under the road. And on the west side, in like manner, to facilitate the passage of the water westward across the country, as may appear most expedient.

It is a fact, which I have noticed over and over again with reference to great public works, that in their construction and maintenance, too little consideration is given to the just rights or convenience of the people who inhabit the country immediately influenced by their existence. The subordinate servants of the Roads, Rail-roads, Canals, with their many rajbahas, and the marvellous Customs hedge, are I think, especially inconsiderate in this matter. Certainly as regards the road-makers, they dig for their earthworks sometimes in reckless fashion, holes and pits, always unsightly and unwholesome, sometimes positively dangerous to travellers, or the inhabitants of a neighbouring village. I wish this could be remedied and prevented, at least in the neighbourhood of all important centres of population.

266. At Secundrabad the limits of the municipality are defined by pillars set up about the town, and earth is not be allowed to dug for removal anywhere within the limits. This is a most admirable regulation, and I was sorry to see that it was disobeyed at a ragged and very filthy water-hole in the northern outskirt near to the public latrine on that side.

This water-hole and its neighbourhood is the only place within the municipal limits which presented a really disgracefully neglected appearance, and some ruined houses near to it, which ought either to be rebuilt or levelled, were seen to be filthy and frequented as a latrine place. One other place I should mention as much requiring improvement is the site about the junction of the Boolundshuhur Road with the Grand Trunk Road. The land is much broken by excavations there, and a sad looking water-hole of no great extent, which exists between the mehter's quarter and the Grand Trunk Road very much calls for improvement.

The butchers' slaughter-place has been located at some distance outside the town. It consists of a small enclosure in the midst of the khets on the south-west side of the town, and this arrangement is a very great improvement on the plan formerly in force when the butchers killed in their own houses in the town. But, as an illustration of the difficulty which attends the satisfactory management of this business, I may mention that the site of the new slaughter place is part of a Hindoo zemindar's property, and the cultivators of the neighbourhood complained that they could not cultivate the fields near to the slaughter place with comfort, or would now use the water of the well near to it. Certainly the butchers are careless, and when a carcass turns out unfit for food, they throw it outside to be eaten by vultures, which accounted for the skeletons of bullocks seen in a piece of low ground there.

Owing, I believe, to the complaints of the Hindoos, the Municipal authorities are about to remove the slaughter-place to a neighbouring *pujawah*, and I think the change is desirable, if the absolutely necessary enclosure wall can be properly provided there.

267. The water in the wells at Secundrabad stands at about 25 feet from the surface. In the town the water of the wells generally is a little brackish. In the outskirts the water is quite sweet. Canal-irrigation extends to some of the town lands, but nowhere in the immediate neighbourhood of the town. Since the canal was made the water in the wells has risen about 6 feet, but its quality has not been changed. Although fever, as apparently in all parts of the Province, prevails in the autumn time of the year, spleen enlargement is a very rare condition in the town.

Of all the boys assembled at the school I could not discover this condition in any one. The general aspect of the town-population was that of a people enjoying good health.

268. The Tehseelee and Thannah are situated outside the town on the Grand Trunk Road, in one building—a square fort-like structure of considerable size in perfect repair and admirably kept. As it was built by Mr. Webster, I need scarcely add it is a most durable and highly creditable Government structure. I know Mr. Webster was really a great builder, who thorough appreciated the fitness of ensuring the utmost possible perfection of material and workmanship for Government buildings. This, the first specimen of his work I have examined closely, leads me to think that I shall have much to say hereafter in praise of his efforts in this direction in the Boolundshuhur District generally. The Mortuary Register of the villages of the Thannah circle was seen to be carefully kept up to date, that of the town is equally well-kept by the town authorities.

The Seraie, which neighbours the Tehseelee, is a rather narrow poor-looking place of mud huts. The enclosure ill kept, and about to be encroached upon by the erection of a Mosque in the centre. I must say, as regards convenience of accommodation, travellers are not so well off here, as they used to be formerly in the old seraie on the Madho Dass Bazaar Road inside, the town, before mentioned.

BOOLUNDSHUHUR.

269. The capital of the Boolundshuhur District, though by no means the most important town of the District I inspected it on the 8th of February.

The Civil Station—a remarkably pleasant spot as an Indian station—is situated in the immediate neighbourhood of the town westward, and between the Civil Station and the Town but forming indeed part of the latter, are the Dispensary, District school-house, and Jail. All well built and remarkably well-kept, and forming, together with the good roadways which skirt them and the trees in their precincts, a remarkably neat west end to the town. The School-house and Dispensary were built by Mr. Webster. Kunker blocks enter much into their formation, and for goodness of appearance and durability of construction, I think they are, without exception, the best buildings of the kind I know in the Province. The Jail which stands on a well-raised site, is of old fashion—a plain square, brick-built throughout. Much divided inside into small court-yards, all sad clay-coloured, without I think tree or vestige of verdure within, but fronted by a pleasant garden of considerable extent.

270. The Town of Boolundshuhur, formerly called Burrun—under which name it appears in the Census Statement of 1865—is situated on the Kalee Nuddee, which, indeed, compasses the town on the east and south sides.

Ancient Burrun stood upon a hillock of considerable extent, the eastern and southern limits of which are bordered by the wide khadir of the Nuddee but modern Boolundshuhur has spread ont westward, so that now there is nearly as much of town on the level land there as on the hillock, although the latter is still covered with houses. This hillock on the Kalee is doubtless a very ancient centre of population—even now carved Buddhist stones may be seen to form parts of a mosque there, and coins of the times of the Guptas even, I understood, but certainly ancient coins, have been unearthed in the same neighbourhood.

In the time of Raja Burrun Singh, and afterwards, a fort stood on the highest site of the hillock, and even now the high part of the town is called "Bulai Kot," and the level part "Zer Kot." But the fort has quite disappeared, to give place to a new Tehseelee and Thannah.

At the very northern extremity of the town there is a good bridge of low arches over the Kalee, which carries the high road from Anoopshuhur to Secundrabad, where it joins the Grand Trunk Road as I have described in writing of the latter town. From the foot of the bridge, too, start the two principal ways of Boolundshuhur—one leading up southward over the Bulai Kot, the other winding round the base of the hillock in the Zer Kot half of the town. The two roads meet again outside the town south-westward to form the Momum high road, which leads to Khoorjah. Indeed, the lower branch in the town itself is named Momum Road—Momum Boozoorg being a village about half way to Khoorjah.

271. This upper and lower road, and the Chowk road to be hereafter mentioned, form the principal bazaar ways of the town,—the lower most important, with the best shops and greater business, and naturally carrying all the traffic which crosses the bridge for Khoorjah, by far the most important town in the district; the upper finely raised on high earthwork, giving it a gentle slope at both ends, is quite a great work of road-making. It leads up to the tehseeldaree as a wide kunker-made way of the first class. Beyond the tehseeldaree—a fine building of pointed arches in severe style, admirably rendered in brick, another of Mr. Webster's works—it has been lined with shops of modern construction, which, I regretted to notice, were not inhabited as shops but either empty, or used as stabling for bullocks. Most of the houses are yet incomplete, and the whole aspect of the place bears testimony to a considerable waste of money there, at some time not long passed. I do not think it was reasonable to expect that the Bunneas would ever, as a lasting arrangement, come up out of the level country of easy traffic to establish a bazaar here. This upper road must have cost a considerable sum of money, at least two expensive kunker-built bridges pierce the earthwork, the arrangements for drainage were seen to be costly, and it must be an endless source of expenditure for repairs. Moreover, either in making it, or subsequently for its repair, earth in considerable quantity, especially at the northern end, has been dug from the Kalee Khadir—the result being a permanent swamp of considerable extent a condition to be avoided with all carefulness here, and especially since the nuddee has come to be used as the way of outlet for the waste waters of the Ganges Canal. Past the neglected bazaar, which is called Sapte Bazaar, there is a poorhouse, and then the road sinks gradually down to the level again, not, I think, bordered by houses at all.

The poorhouse so called is a well-built place enclosing a circular insterspace apparently used principally to store building material. Some of the rooms attached are in use as a lodging house for boarders of the zillah school. Sometimes, however, poor wanderers lodge there for the night, but no food is given, so I understood.

At the time I saw it, the poor were represented by two quite young Brahmin widows in rags (one with a child), who, not being able to remarry, were ekeing out a miserable livelihood in beggary, passing from town to town in search of food. People with me heard their piteous tale. No one seemed to think they did anything wrong or ever would; but being Brahmin's widows, without surviving friends able to keep them, they must live on charity, now that *suttee* was abolished. That appeared to be the general opinion of quite respectable men. How a people, generally so alive to the causes of suffering and misery, could have been brought under the thraldom of a religion inculcating such beliefs, is a thing hard to account for. I have thought that the people of to-day must differ somewhat from the people of the generations just gone, inasmuch as they are able to talk in sorrowful tones of certain facts concerning their beliefs. And so they talked of these poor widows, and their now state of absolute hopelessness in this life.

272. The lower road, too, is admirably made with kunker: a wide way of many fair brick-built shops, carefully drained by saucer-drains—all kept in fine order. From it two notable ways go up to Bulai Kot; one to the tehseelee (a rather winding way paved with kunker-blocks), the other a way of kunker-block steps, 45 in all, going up to the tehseelee school-house—a well-built place of two rooms with verandah,

but mostly remarkable for this great flight of steps in connection with it, which, for width and perfect construction, might well form the entrance-way to a great temple. I think Mr. Webster must have made them, but have no note of the fact. Near the centre of this lower road is the chowk—a wider business space with good shops, which sends a branch westward to the dispensary and district school, and so on into the civil station, from which this is the principal way of entrance to the town.

273. The smaller ways of the town are carefully levelled; some are paved. The houses generally are in a good state of repair, and the aspect of Boolundshuhur throughout, is that of a town in which much care has been and is given to the matters of good management and improvement.

274. The great road from Anoopshuhur to Secundrabad may be said to margin the town on its north side, and soon after it has passed the Kallee Bridge it reaches Deputygunj—a wide market-place founded by Mr. Tonochie, formerly Deputy Magistrate of this district. It consists of a wide business space, surrounded by poor-looking shops. Much dealing in grain was seen to be going on there. Trees have been planted in orderly arrangement on the interspace, which is drained towards the Kalee by a remarkably wide, almost flat, drainage-way of brickwork, over which carts may go as easily as on the road. I think, for a gunj, this method of drainage is worthy of imitation.

275. A municipal government has been established in this town since 1866: its existing income is Rs. 10,000 per annum,—raised, Rs. 6,000 by octroi, Rs. 2,500 by house-tax, Rs. 1,500 by miscellaneous, pound, and nuzzool. About one-half of the income is expended in wages. Besides the spare income of the past six years, a considerable portion of Rs. 30,000 tuccavee advances, remitted in 1861, was devoted to town improvements. The conservancy of the town is admirably effected by means of 20 public sweepers; no part appeared to be neglected. Even the outskirts everywhere were found remarkably clean, and to this end the five public latrines around the town, capacious and much frequented, are most useful.

276. The drainage of the town site, both Bulai and Zer Kot is towards the Kallee Nuddee. On the nuddee side of the hillock there are two principal drainage-ways leading down abruptly to the khadir—one a kunker-block way of considerable extent on the east side, the other brick-made, to the south. And no doubt the high part of the town is thoroughly well drained from excessive rainfall.

The level part of the site and the civil station drain towards the Gundah Nullah, which runs through the northern border of the town, under the earthwork of the high road to the nuddee.

This nullah has been partly straightened and improved in recent times, and is a fairly well-kept waterway; but as yet nothing has been done to give it a permanent bed of perfect slope. The saucer-drains of the bazaar-way end in a wide open kunker-built drain, which leads down to this nullah. I think if the bottom of the nullah itself could be paved in the same way it might be made a very efficient waterway indeed. Its slope will not, I think, admit of its being deepened; even now I should suppose, in times of heavy rainfall, water from the nuddee must run back into it for some distance. At one place this nullah is broken into a narrow pool, where it much requires improvement. The rain drainage from the Jail finds its way northwards to the same nullah by means of a large covered drain, which, however, ends in some much broken ground in the western outskirt, at a considerable distance from the nullah. This broken outskirt is called Budrao-am-barish; it is the part of most neglected appearance around the town. Bricks were dug and made here for the building of the jail in 1832, and the mischief done then is perpetuated by the jail drainage. It is in the midst of a Garerecha's quarter, and many goats and sheep are kept there. Altogether it much calls for improvement. The digging of earth there for removal should be forbidden, and some levelling effected; but especially the jail drainage should be carried clear away to the nullah.

277. The condition of the Kallee and its khadir land merits a separate paragraph. As seen from the top of the tehseelee, it presents the appearance of a remarkably wide moist tract of land, containing many pools and collections of shallow water in addition to the stream proper. This was explained to be a new feature in its appearance, due to the making of the Ganges Canal, which throws a large quantity of water into the nuddee at certain times of the year, and always more or less during the many months of the year in which canal-irrigation is effected. I heard much complaint of the injury which had resulted, in regard to the existing impossibility of cultivating successfully the khadir land, which before was famous for the goodness of its crops. Now the moisture is too plentiful and persistent, and besides *reh* has become wide-spread where before it was unknown.

278. The people of Boolundshuhur, numbering 15,284 according to the census of 1865, are about two-thirds Hindoos and one-third Mahomedans, the latter as usual having their Jama Mosque on the highest site in the town, excepting the tehseelee site perhaps. The general appearance of many of the inhabitants I saw was that of people in a fair state of health. Enlargement of the spleen is a well-known condition, however, and fever is a pretty general complaint in the rainy and autumn seasons. I think it is probable that the present state of the khadir tract adjoining the town may account for this in considerable measure.

279. The well water of the wells in Bulai Kot is without exception brackish, although the water is far from the surface; the tehseelee well, for instance, is 90 feet deep, but the water is bad. In Zer Kot land the water of the wells is good. Before canal-irrigation was introduced, it used to stand in them at 24 feet from the surface; now it is only 12 to 14 feet, and although the water is quite sweet, its character is changed, so that the inhabitants complained of it as heavy and hard of digestion—words which may have little of signification for us, but are full of significance to those who drink only water from one year's end to the other. The Boolundshuhur townlands, and all the surrounding lands on the west side of the Kalee Nuddee, are pretty generally irrigated from the canal.

I should mention that the mortuary registers of the town and thannah circles were found well kept to date.

ANOOPSHUHUR.

280. Anoopshuhur, inspected on the 24th February, is a town on the ganges, about midway on the river border of the Boolundshuhur District, and as such is necessarily in greatest measure a town of Hindoos yet about one-third of the inhabitants are Mahomedans, who have one rather fine modern mosque on the bazaar way, and another, building by the Sherishtadar of the Meerut Judge's Court, nearer to the river. But the Hindoos have their Gunga Durwaza, a rather solemn place of temples, in a tree-grown ravine leading down to the Ganges; Mudar Durwaza, another place of the same kind; and a high raised cluster of brick houses and temples called the "Gurhee," where Gujeratee Brahmins live.

281. The town site is high raised on the bank of the Ganges, which to the river side is quite precipitous, having been much cut by the floods of late years, so that wells of other days now stand as pillars in the river bed. But there is very little water under the bank at this time of year, the deep stream being far off, at the opposite side of the wide river bed, all the interval being a level bed of white sand.

The site is long and narrow, as in most towns on the Ganges—a principal object of builders being easy approach to the river—and in three or four places ravines leading down to the river cut the site and drain it thoroughly.

282. The very southernmost point of the town is bounded by the Allygurh highway, well known to travellers bound from Allygurh to Moradabad, and on this road the

work of modern improvement has mostly centered. But it is essentially in the southern outskirt, and not in the town itself.

The road from Boolundshuhur enters the town at its northern aspect, and passes straight through it to join the Allygurh road; this is the main bazaar way. A wide well-made roadway, at first entered from the south, called Bazaar-e-Musjid, from the prominent mosque which borders it, but the shops are low and poor here; then Bazaar Kulan, where the shops are better and often in double-storied houses. Bazaar Kulan is cut across by a second bazaar way running through the short diameter of the town; and further north again the mundee opens off the Bazaar Kulan. The mundee is a square of, perhaps, 50 yards, surrounded on three sides by good-looking grain shops, some in double-storied houses. Beyond the mundee the bazaar way continues for some distance, to end as before described in the open Boolundshuhur road.

The northern outskirt is unusually high raised, being the Gurhee Mohullah, where the Brahmins live. Now, it is a quite open place, but much remains to testify to the existence there, of mud-built fortifications, in days gone by. The Gurhee appears as rather a wilderness of great brick-built houses, many in bad repair. From the high bank there, the destructive work of the river may be best seen. The local statement is, that the river has taken 300 yards in breadth hereabouts of the town site in the past 45 years, and I think from the appearance of the river bed the statement is likely to be true.

The town contains many brick-built houses, but the general appearance is not that of a prosperous town, and most of the houses are mud-built. On the landward side the houses may be noticed as forming together something of a wall, beyond which the land sinks down, suddenly partaking of the character of a wide sandy ravine, water from which drains by a bridge northward under the Boolundshuhur road to reach the Ganges. So that unquestionably the Anoopshuhur site is most perfectly drained. Nothing of moisture or water-hole can be seen anywhere, excepting immediately under the river's bank, where Ganges water stagnates temporarily.

283. The Allygurh roadway in the southern outskirt is the most important part of the town in regard to appearance, and this is due to Mr. Webster, who fixed upon it as the proper site for the public institutions. The roadway itself, wide and smooth, in great measure resembles the Grand Trunk Road. When it comes to the Ganges, it slopes down gently to the river bed, and upon the slope on each side, a row of very fine masonry shops, called Webster Bazaar, were built seven years ago.

The roadway here is drained by very wide saucer-shaped brick drains, and altogether this bazaar looks a very fine place indeed for an Indian town of the comparative importance of Anoopshuhur. All the shops have been sold to bunniahs, or others, at cost price, *viz.*, from Rs. 500 to Rs. 200 each; according to width. Most of the shops are let at rents varying from 8 annas to 4 annas; one is let for Re. 1-8 a month. Altogether I should think their purchase was a bad speculation.

Five years ago the roadway was continued as a kunker-made way across the sands to the bridge-of-boats, as I happened to see it in 1868. If that could have been permanently maintained (I know it is impossible), the Anoopshuhur Ghat might have become very popular and much frequented, and then the new bazaar would have flourished. But, as at Gurhmooktesur, so here, the Ganges took the road one year after it was made; the bed of white sand is now smooth and perfect as ever, and the bridge-of-boats even has had to go farther up the stream. The way over the sand is long and curving, and the Anoopshuhur Ghat is not popular with cartmen. I should think the opening of the railroad to Moradabad will make the prospects of this bazaar less and less bright.

The high road before it comes to the bazaar has the post office and dispensary neat buildings in brick, to one side of it; and the tehseelee and school-house, both fine building on the other. Altogether with its public buildings, wide road, and bazaar, this part of Anoopshuhur is highly respectable and every way commendable.

284. Neighbouring the river, the town site is sometimes broken by branching ravines, and there the houses are high raised in clusters, the public way being in the shallow bed of the ravine.

A municipal committee is in authority at Anoopshuhur. I understood it had been in existence four years. The municipal income results from an octroi as usual, which realizes about Rs. 5,400 per annum, of which about Rs. 4,000 are expended in wages.

A sufficient staff of public swepers is maintained, and the town was noticed to be remarkably clean everywhere. Three public latrines are in existence; they are well placed in the outskirts and well cared for; but the majority of the people retire to the ravines which abound in the neighbourhood of the town. No place quite near the town is frequented for this purpose. It used to be so, but the establishment of the public latrines has taken away the excuse for it, and now all who are able go out far.

285. As yet the municipal authorities have utilized their small balance for improvements, in consolidating certain portions of the public ways. For example, the south-east and west way has been made with kunker. At the back of the mundee two short ways leading down to the Ganges will be improved in like manner.

A very considerable improvement has been effected by paving certain precipitous portions of the ravines leading down to the Ganges, and especially of certain ways leading up to the Gurhee Mohullah, and down again on to the Ahar road. Some of the lanes of this part, too, are paved. The improvement here seemed to be more for the benefit of the Goojeratee Brahmins than for the general community.

One very great improvement has been acomplished by the successful opposition of the town authorities to the building of a temple in the midst of the mundee. The foundations of the proposed temple may still be seen in part, and it is apparent that if the temple had been built, the open space of the mundee would have been in great measure taken up by buildings, to the injury of its sanitary aspect and the hinderance of business. Heaps of kunker belonging to the bunniah who wished to build the temple still exist on the site and are a cause of nuisance. At the time of my inspection, the mundee was filled with carts, many men moved in it, and its maintenance as an open place of business is very necessary.

I was so impressed by this necessity that I visited the bunniah who purchased the land soon after the mutiny, with a view to influence him to take back his money and give the town the land it ought to have. He was a feeble old man, in a bad state of health; his thread of life short now. But he was obstinate about the land, saying he had bought it, dedicated it to a temple, and would not, or could not, go back from his desire. I hope his heirs may be less obdurate, for certainly the open mundee is absolutely required for the good of the town and the welfare of its people, and the sooner it is brought to a perfect level the better. Its surface is well consolidated; but it is drained into the streets behind it which lead down to the Ganges, and are therefore much broken in places. It may be difficult to remedy this, but I think it can be done, and then these streets may be perfected.

If at any time funds should accumulate, I think the best results would accrue from opening out a broad straight way of communication between the Gunga Durwaza or other convenient ghat and the Bazaar Kulan. It would bring fresh air from the river expanse into the town, and might be made the centre of a surface drainage system for the town thoroughfares. At present the saucer drains of the main thoroughfare in some places throw the rain water into the lanes, thence to find its way to the Ganges as best it may.

SHIKARPORE.

286. Shikarpore, inspected on the 1st of March, is a town of Mahomedans principally. It was in former days called Kuntaen Gobindpore, and its name was changed to Shikarpore by the Emperor Lodi, who appointed Syud Abdoollah as zemindar. From this time it dates its Mahomedan history. Now, the ownership of the land

has gone back to the Hindoos, and Chowdree Luchhmun Singh is the landlord in chief. But the people are mostly Mahomedans, and many descendants of Syud Abdoollah, Poor men of fine *physique* live there. They are proud of their kunker-built mosque and of the tomb of their ancestor Abdoollah, which is covered with a canopy of red sandstone on 16 pillars,—pure Hindee as to style in the upper portion, the base of the pillars carved,—a very noteworthy tomb, the equal of which in its style I have never seen anywhere. Certainly it is as much worthy of mention and consideration as the Hindoo queens' palace in the Agra Fort.

287. Shikarpore is on the high way which slants through the Boolundshuhur District, from Dadree in the north-west, to Ram Ghat on the Ganges in the south-east. This is a very important high way, joining Dadree, Secundrabad, Boolundshuhur, Shikarpore, and Debhaee, continuing to the Debhaee Station of the Oudh and Rohilkhund Railway, and so on to Ram Ghat.

The southern part of Shikarpore consists of a great walled serai 250 years old, through which the high road passes. This serai of other days has now a bazaar-way of rather poor shops down the centre in a line with the road-way, both ends of which are closed at night by large doors set in good gateways. Behind the shops on the south side is the modern serai-place, an open space of considerable extent. The remainder of the great enclosure is now built over, with the exception of here and there a narrow way.

From about the centre of the old serai a way goes up north to pass through an opening in the wall there, also closeable by a gate. Outside the serai the shops improve. The principal Hindoos live here, and have just completed a fine enclosed Thakoordwara, in which are temples to Mahadev, Gunga, and Radha Bulub. Soon this way splits into two, one branch going to the north-east, the other towards the south-east,—The former most important, with some very good shops on it; the latter remarkably tortuous, the shops poor.

288. The above described form the important public thoroughfare, which is consolidated and drained throughout. Many narrow unmade ways pass in different directions through the town, which covers a rather extensive site. Five merchants in a large way of business live in the town, and several bunniahs of less importance. In all there are about 600 good brick-built houses. The northern part of the town is village-like in every respect, for many cultivators live in the town.

289. The town is managed by a *punch*, of which the resident Chowdrie, who is an Honorary Magistrate, is the President. The municipal income results from a house tax which realizes Rs. 3,648 per annum, of which Rs. 2,190 is expended in wages, so that a fair amount remains for works of improvement; a company of 12 public sweepers is employed, but their labour is not well superintended. As a rule, the main bazaar way is well kept, but parts and places beyond that are much neglected. The great serai bazaar-way, which, as I have said, is the high road from Boolundshuhur to Debhaee, is bordered by a deep saucer drain, passing under the serai wall to end outside. The passage under the wall was seen to be blocked with filth, so that a considerable amount of sewage of a bad description had collected in the drain, making the neighbourhood of the high road unpleasant.

290. The town site is, in greatest part, level, and in days gone by there has been much trouble from flooding in the rains. This has in great measure been remedied by Mr. Webster. The eastern border of the town is a region of excavations, two of which are very large; the high road courses between them upon a wide culvert, by means of which they are connected, a cutting passing from one to the other. The rainfall drainage of the town is directed to these excavations, the southernmost of which is provided with an escape channel, a wide well-made cutting, which passes southward through the lands of Khoshalpore, Mahomedpore, and Kareenah, to the Kalee Nuddee,—a distance of 5 miles. This cutting was seen to be well kept, and is

apparently, efficient for its purpose, to the increased comfort of the Shikarpore people. It was made six years ago, and has been a work of great benefit to the town.

291. Public latrines have been established both on the northern and eastern sides of the town. They are mud-built enclosures, and were noticed to be much frequented and fairly well kept. But that on the east side of the town is in a bad state of repair.

The resulting impurities are buried in pits near to the latrines. They should be carried away and buried in trenches at some distance from the town.

The butchers' quarter was seen to be well kept. The slaughter place has been established outside the town at a place distant about a mile from it,—a very great improvement.

292. The school-house now in use is a mud-built shed to one side of an enclosure, in which also is a cow-shed—altogether a filthy, ill-kept place in the midst of the town; 66 boys are taught at the school, of whom 18 are Mahomedans. In the north-western outskirt of the town there is a fine church-like school-house, with a roof arched after the plan of the dispensary at Boolundshuhur. Unfortunately its foundations have proved insecure; especially in one corner, they have sunk down considerably. Consequently the building is in a dangerous state, has wide cracks in it, and will have to be thrown down. It will be rebuilt on a better site.

The police office is a good little masonry structure, situated near the junction of the Khoorjah and Boolundshuhur roads; the mortuary register was seen to be carefully written up to date.

293. The local statement was that no Improvement Act is in force in the town, and therefore the matter of conservancy was a good deal neglected. The Chowdree, Luchhmun Singh, who accompanied me in my inspection appeared to be interested in the matter of town improvements, and to desire the welfare of the people.

JEHANGEERABAD.

294. Jehangeerabad is a town of the Boolundshuhur District of 9,973 inhabitants, situated 14 miles due east of Boolundshuhur, with which it is connected by a fine kunker-made roadway, by means of a branch sent off from the highway between Boolundshuhur and Anoopshuhur. I inspected it on the 22nd and 23rd February. The population of the town has considerably increased since 1865 when it was 8,875. But I understood that, notwithstanding this increase of population, the importance of the town as a centre of trade has so little increased, it is in contemplation to permit the kunker-made way to revert to its former condition of an earth-made road.

295. Jehangeerabad was founded 400 years ago by Thakoor Jehangeer Singh. The local opinion is that previous to that time the town lands were in greatest part forest.

During the present century, the old Hindoo owners were obliged to sell the zemindaree rights of this and thirteen surrounding village lands, and the family of the present owner, Nawab Mahomed Allie Khan, bought them for Rs. 64,000. Owing to the doubtful conduct of the present Nawab's father the property was nearly lost after the mutiny. However, the present owner is thoroughly well re-established. He is the principal person in the town and neighbourhood, an Honorary Magistrate, and a man of some importance, as well he may be, possessed of so valuable a property; for, as the result principally of the improved form of Government now existing, the lands of Jehangeerabad alone are estimated to be worth Rs. 1,25,000.

I mention these facts as an illustration of the great increase in wealth which has accrued to landlords generally during the past few years, and the resulting obligation under which they live, to improve in some reasonable measure the condition of the work-people employed on their estates. And yet, I have never hitherto been able to

find a landlord prepared to spend money, with a view to bringing a village site on his property into a fitter state as a place of residence.

296. The town of Jehangeerabad may be best described as consisting of one remarkably wide central way, like the Grand Trunk Road, with the houses of the town about equally grouped on each side of it. The shops of the principal bazaar line this road in part, and two short bazaar-ways cross the road at right angles, but the shops are poor, with hardly a double-storied house amongst them, and the surface of these cross-ways is depressed. Indeed, the town as a whole, although fairly extensive, is poor-looking, the only two buildings of note, being the thannah—one of Mr. Webster's constructions, good in every way—and the nawab's house, a place of modern style, which adjoins the thannah. Both of these structures are on the great central road, which itself is finely paved with kunker and drained with saucer-drains, and they both stand on the one slightly raised site in the town. Of the 3,273 houses the town contains, only the shop fronts of the bazaar and the nawab's house are brick-built; the remainder, with perhaps a very few exceptions, are mud-built. The less important ways are quite unmade and of depressed surface, and altogether the general aspect is not that of a town of importance. A market is held every Wednesday, however, and many people frequent it. The market assembly takes place outside the town in the northern outskirt.

297. The great sanitary defect of this town is want of drainage. Its site is low, and in the rainy season the town is often nearly surrounded by water, which stagnates in the places about to be described.

In former times the town was surrounded by a mud wall, and the broad ditch which resulted from the necessary digging now exists as a much broken excavation almost all round the town. The southern quarter of the town is one vast excavation called Burwai Pokhur, I think, after a great banyan tree there. To this Pokhur all the southern half of the town and indeed all the immediately surrounding country drains. For, as a rule, the fields outside the town have a higher surface than much of the town site,—indeed I think than all of it, excepting the fine raised road which passes through its centre. The saucer-drains of this roadway even terminate, by means of a made drainage way, in the Pokhur, and great part of the drainage of the northern half of the town is carried under the road by means of a culvert to the same place. As the Pokhur fills with water, this drainage way, for there is no other outlet, permits the water to flow back into the town, and when that is the case, as after very great rain, all the less important ways of the town fall into a miserable state from mud and water. The ditch around the town and the Pokhur are full to overflowing, and but for the raised central road it would not be easy for the people to go out of the town.

In the northern outskirt near the entrance way, which comes from the Syanah and Khanpore direction on that side, there is a pretty considerable water-hole made by brick-makers, as shown by the two great pujawah mounds which neighbour it. The entrance way is low and subject to flooding after heavy rain so that then there is no way out there.

298. This trouble of waters was the theme of complaints on all hands here, and it is a condition which calls loudly for remedy. As in all places subject to flooding I have ever inspected, so here; the appearance of the town as a whole is miserable, and its people are careless in regard to the uses to which they put the excavations surrounding it. Wanting to acquaint myself thoroughly with the facts concerning this much-complained of want of drainage, I found it necessary to make a circuit round the town, and in doing so I noticed that the ditch—so described for convenience sake, and because of its origin, but really now a succession of ragged excavations of differing depth—appeared to be the pretty generally frequented latrine place on all sides. And in several places about the Pokhur, the same condition appeared. This Pokhur is about the largest and most disreputable looking excavation I am acquainted with, as forming actually part of a town site, for it has houses on three sides of it. It is shapeless; earth has been dug in all directions from its bed. The quantity of shallow water it now con-

tains, is used for washing and steeping their cloths, by a very considerable colony of cloth-printers and dyers settled on its western bank. Beyond the Pokhur southwards, its free margin, there are rather extensive remains of earthworks, being fortifications made by an ephemeral ruler of the mutiny times, Bheem Singh. These mounds of much good earth continue for some distance along the south-western border of the town, enclosing a widish open surface, which has been dug into holes almost everywhere, by people seeking for earth to repair their houses.

299. The municipal government of this town is still in the hands of the old *punch*, and I understood that no Improvement Act has yet been brought into force here. A house-tax, yielding Rs. 339 per mensem, is levied, of which Rs. 164-8-0 are spent n thetown as wages. Thirteen public sweepers are employed for the conservancy of the town, and four sweepers for the conservancy of two public latrines, one in the north and one in the east outskirt. These latter are commodious and well kept, and are frequented by a considerable number of people. But I have said enough to show that their number should be increased, and especially on the south side of the town an establishment of this kind is much required.

300. The land surrounding the town is remarkably fertile. On all sides and close up to the ditch, crops of wheat and barley and kussoombh, as good and heavy as any this province can boast of, may now be seen. The sweepings of the town contribute in great measure to this fertility, ensured by much watering from wells. All the cultivators live in the town, and many bullocks come and go daily from the town to the fields. The cultivators employ many sweepers to bring manure from the town—and especially from the ditch, its convenient resting place—to the fields, paying them at the rate of Rs. 3 a month, for both sweeper and buffaloe on which the manure is carried. These cultivators are mostly of the Lodha caste.

301. The well water, 27 feet from the surface, is remarkably good both within and around the town.

302. There is a school-house at Jehangeerabad near to the thannah. It is an old barradurree, confiscated property of Government, with a high raised floor, the roof low, but ventilated by openings in the back wall; 107 boys attend the school, of whom 30 are Mahomedans. I should say that about one-third of the population is Mahomedan. I could not see the boys, as school does not commence until late in the morning. There are no important merchants in the town; no trade exists worth mentioning of any kind, but much grain is brought to the town for the consumption of its numerous inhabitants.

There is no dispensary. The Mahomedans have a Juma Musjid of Lodi's time, the front of which has just been rebuilt by the resident nawab.

Off the main road there is a well-kept serai, with the usual mud-built huts and shady trees, but some of the huts are ruinous.

Many trees mix with the houses of the town, and form its one pleasant feature.

303. Fever is a prevalent complaint here in the autumn time, but is not unusually fatal or persistent. Of many people assembled, all denied any condition of spleen enlargement, and in some selected for examination I could detect nothing of it. But certainly many persons of sallow complexion, betokening a poor state of health, were seen.

304. I need scarcely say that no hopeful improvement can be looked for in this town until the outflow of the great Pokhur is proprely provided for. There is no nuddee anywhere near Jehangeerabad, but there is a "khar," or natural drainage channel, about $1\frac{3}{4}$ miles to the east of the town, which is one of the commencing branches of the Chœya Nuddee. I think enquiry should be made as to the possibility of draining the town site effectually to it. And if it is possible, I would strongly urge the advantage of doing it. When once the surplus of water can be provided for, the pujawahs stand ready to improve the northern outskirt, and the useless fortification

mounds, the southern. The ditch brought to a level surface, so maintained, and reclaimed to cleanliness, might be utilized in aid of the Pokhur drainage. Then the increasing population may improve into a stronger and more decent people than are now the majority of the heads of families there. I think Section 34 of Act V of 1856 should be enforced here; and the resident Honorary Magistrate might, with advantage, be encouraged to exercise his authority for the prevention of nuisance in the immediate neighbourhood of the town, his position of landlord and master everywhere being undisputed now.

DEBHAEE.

305. Debhaee—inspected on the 27th of February—is a town of some importance situated in the south-east corner of the Boolundshuhur District.

The town covers a widespread site, sandy as to soil and low, but saved from flooding in the rains by reason of two branches of the Choeya Nullah. These rise in the land north of town, and pass, one on each side of it, to join below the town. They contain water only in the rains, at which time they serve as efficient drainage-channels.

306. In greatest part the town is an agglomeration of buildings scattered without order. But it has a way from south to north, being the road to Anoopshuhur, and a way from east to west, being the old Boolundshuhur road. The first is wide. From the south it commences as a low broken way of entrance which leads to the gunj, a small open space having thatched shops at the sides. It then continues for a little distance as a bazaar-way of poor shops, afterwards as a way amidst mud-built houses, to end in the northern outskirt. In this part, at one place, it passed an open space of some extent with one shop in the midst, and behind the shop is a new police office, which has been building for eight years, but is not yet roofed in. It is a really fine structure of good brickwork, and much merits completion. The old mud-built thannah adjoins it.

307. The old Boolundshuhur road is a bazaar-way of more importance: its western portion is narrow, but after crossing the first roadway at the gunj, it opens out a little and towards its southern extremity is a better road every way, with some fair shops. The school-house is here—a small room with low roof, approached by a narrow lane of broken surface; 99 boys, two-thirds Mahomedans, were crowded about the room, the air of which was bad.

The inhabitants are Hindoos and Mahomedans in about equal proportions, but the schoolmaster is more acceptable to the Mahomedans.

The road from north to south has been in part paved with kunker lately; with this exception, the roadways of the town generally are low, unmade. The general condition of the public thoroughfare is miserable in the extreme,—dust thick-lying in many places. The butchers' slaughter-place is a small courtyard amidst the houses, in which seven calves were seen tied up near to the blood and meat of recently slaughtered animals.

308. The general aspect is that of a town in which the people are not prospering. But there are not less than 150 houses, principally residences of Mahomedans, upon which from 8 to 12 annas a month house-tax is paid. And there are 50 houses of Bowreyas. The ruined family of a former Mirza live here, but their property has in great part fallen to ruins.

The local belief is that the town was more prosperous in former days. The town contains many cultivators, but its trade is at a low ebb. For one thing it is famous. The land everywhere neighbouring Debhaee bears much safflower, and the resulting dye-stuff is collected and prepared for the market in large quantities in the town in the early months of the year. Agents come from far to purchase it and carry it

away, especially Bhutearas, with their beasts of burden. But I understood that the railroad was drawing this trade to itself in good measure. The new Boolundshuhur road mentioned in the report on Shikarpore skirts the town on the west side to pass on to the railway station. It is prepared for metalling ; but at Debhaee its line crosses a vast excavation, being the old brick-making place of the town. An extensive earth-work will be necessary, for which purpose old brick-kiln heaps stand ready to help. But it will be some time before this road will be completed. It has been already three years in its present unfinished state.

309. The Oudh and Rohikhund Railway, as it slants up from Allygurh to Moradabad, passes about three miles south of the town, and has a Debhaee station. In process of time I have no doubt a considerable traffic will be directed to the station.

Jyerampoor, the new station growing up on the Ganges' bank, about the head works of the Lower GangesCanal, is situated eight miles east of Debhaee. And altogether this corner of the Boolundshuhur District is rising into importance, and I think the Debhaee people may look forward to more prosperous days. They are strong-looking, their children numerous. The population, 7,169 in 1865, had increased to 7,620 in 1872.

310. There is but little town management and I could not make out that any of the residents were interested in this matter. A house-tax, yielding Rs. 2,400 a year, is levied, and 14 public sweepers are employed, four of whom give their attention to two masonry-built public latrines. The latrines, however, are little frequented. The people, as a rule, retire to a distance from the town, and in regard to conservancy nothing very objectionable could be seen anywhere.

Nothing has yet been done to direct the rainfall drainage of the site to the neighbouring Choeyas.

In the northern outskirt there are four seraies pretty close together on the Anoopshuhur road. They are poor places, but seemed to be fairly well kept. Travellers and traders come in pretty good numbers, especially in the Kussoombh season, and on market-day, which is Monday.

311. Formerly Debhaee was a tehseelee town. The old tehseelee, now converted into an indigo factory, was located in the fort of Agun Geer,—a Maharatta governor. The fort, mud-built and of little importance, is in the western outskirt. I suppose it answers very well for an indigo factory.

312. The drinking water at Debhaee was much praised for its sweetness and purity. There is no canal-irrigation anywhere near the town.

Enlargement of the spleen is a condition almost unknown, and I could not find any person so afflicted. Not one of the boys at the school was so troubled. The mortuary register, both of the town and villages, was found well kept up to date.

JEWUR.

313. Jewur—inspected on the 5th of March—is a town of little importance in the south-west corner of the Boolundshuhur District.

Its site is high raised on the old Jumna bank, and the khadir land stretches level and green for some miles between the town and the river.

It is a much isolated, quiet town, principally of Hindoos,—a town essentially of one street, commencing in the east at a broken gateway. At first opening out to form the mundee, it again becomes narrow and crooked as it rises gently to the top of the high site. It then goes gently down again as a fairly wide bazaar-way to end in a broken road-way, little frequented, which leads through the khadir to the Jumna.

314. In the mundee there are some handsome houses, and throughout the bazaar-way, and especially where it descends westward the shops are good, many brick-built.

This roadway was made with kunker, with shallow drainage-ways at the sides, last year, and the town is now well provided with the respectable main thoroughfare every town ought to have.

The site is confined, and the houses are crowded; but, in respect to ventilation and drainage, the height of the site gives Jewur much advantage over most towns.

315. The town is famous for nothing. It is just a country town to which few strangers come. The people seemed happy and prosperous. The principal man is a Chowdree, who is building a fine new house for himself on a good site overlooking the Jumna khadir. He has established a school at his house, and 20 boys are learning English there. I am forgetting, however, that Jewur is rather famous in the surrounding country for its temple to Seetla—a quite plain white-washed structure in the northern outskirts, just a little courtyard set on a chabootra, the image of Seetla in miniature set in brick in the further wall of the court. Every Tuesday, in the months when small-pox is expected to prevail—from February to June—many people bring offerings to the temple. I met many on the road travelling to Jewur for that purpose.

316. But the great Seetla temple of the North-West is at Goorgeon, 18 miles from Delhi in a south-westerly direction. In the month of March thousands upon thousands of people may be seen on the road travelling to Goorgaon. They carry their children with them, and the wives often go too. Their object is to present gifts to Seetla, by the hands of the children who have not yet suffered from small-pox.

A sweeper presents a little pig, a shepherd presents a kid, a cultivator of the better class presents a calf. But the common gift is one rupee and a cocoanut. The keepers of the temple sell the gifts in kind for their own advantage and the maintenance of the temple. The hope of the givers is that their gift may propitiate the goddess of small-pox, so that when she visits their children she may deal kindly with them and not rob away their lives.

317. I think the generally received opinion is that the people of this country are apathetic in this matter. That, although they carefully nurse their children when small-pox seizes them, they do nothing, nor want to do anything, to prevent its oncoming or soften its severity. But the fact is, they greatly fear small-pox, and, in as far as they have light, do their very utmost to avert the severity of the complaint from their little ones.

They give up their time and comfort for days together in these journeyings, and spend the savings of many days' labour. If one-half of this endeavour after happiness could be diverted to the work of procuring perfect vaccination for their children, their gain would be great indeed, and vaccination might be general. But first a belief in the efficacy of vaccination must grow up, and as yet I think this has made very little way. I fear the vaccination of many years, when first the Government hasted to give this boon to the people, was badly done, for a quite general belief prevails that vaccinated children die of small-pox in quite the usual ratio. I know this is not so in the more recent operations. But much harm was done to this good cause at first.

The very name given to vaccination at the first, and established now,—"teeka lagana,"—was of itself, I think, sufficient to prevent its gaining a general popularity. The words in the Native mind have the force of "to mark" or worse still, "to mark as to class or religion." It can have no other meaning, and yet vaccination is named in that way in all vernacular official documents. I have thought some very

great enemy to vaccination must have devised that Hindoostanee name for it; certainly in talking of vaccination and explaining its meaning and advantages, as I often have to do, I never can with comfort use the word "teeka." Latterly I have fallen back on the words "gao-mata," which express the truth exactly, and seem always to throw light on the subject.

The fact is, that to a people outside the world of books and papers in which we live, a name is everything. If the name is wrong, the meaning of the thing will never come home to the people.

318. To return to Jewur. The town is managed by a *punch*. The income, resulting from a house-tax, is Rs. 2,364, of which Rs. 1,512 are expended in wages. Eight public sweepers are employed, who confine their attentions to the principal way, which was seen to be in good order everywhere.

No minor way is made or much cared for, but the site was seen to be fairly clean throughout, sweepings being carried to the outskirts.

Many cultivators live in the town, and their manure heaps were noticed to be as well placed as such objectionable, yet absolutely necessary, things can be. The town contains rather more than 500 brick-built houses, some very good hawalees, all in fair repair, and the many mud-built houses of the outskirts are good of their kind. There are no public latrines, nor do they seem necessary. The people retire to a distance of not less than 300 paces from the town limits: that is considered the established local practice.

319. The water in the wells is good everywhere. It stands at 45 feet from the surface there is no canal irrigation within some considerable distance from the town. Beyond the outskirts there are in all five or six excavations on different sides of the town—the result of brick-making. When they overflow, the surplus water runs away to the Jumna khadir, and there is never any trouble from excess of water about the town.

320. At the eastern entrance of the town there is a pretty considerable nuzool property, now fallen into ruins in good part. The police office is part of it, and appears as a poor broken-down place; its roofs fallen; its lock-up quite insecure, with a hole in the wall; its gateway a ruin. The town gate before mentioned is part of the nuzool, and just inside it is another part consisting of a tallish house, half fallen down, which was the school-house. Now the school-house is a mud-built room, with a thatch roof. It is in the north-eastern outskirt, and its site is low. The day being a holiday, the boys were absent. There is no dispensary in the town.

321. The people of Jewur generally appeared to be strong and in good health.

SYANAH.

322. Syanah—inspected on the 21st of February—is a town in the north-east corner of the Boolundshuhur district. It is very much isolated. And this condition is increased by reason of great amount of water now poured into the East Kalee Nuddee by the Ganges Canal. All traffic from the west for Syanah, or *vice versa*, must cross the Kalee at Boolundshuhur or at Haupper. Formerly there was a ford at Gulaothee, and I desired very much to pass by it, but the water was too deep even for camels; and no boat was available. So I had to go round by Haupper in passing from Gulaothee to Syanah—a distance of 27 miles to arrive at a town 15 miles off.

323. The business part of the town consists of a poor mundee in the eastern outskirt, from which two ways go up westward amidst the houses.

One of these ways is being raised, and is to be made with kunker. It will be the principal bazaar way. At present the shops upon it are poor, some ruinous, and its course is tortuous. The other way is straighter, but the houses are of less

importance, and the shops there very poor. The thannah is on this way. A poor mud-built place, the lock-up a cell, only ventilated through the cracks in the door. The mortuary register was seen to be well kept.

Altogether the town is rather a miserable place; its inhabitants are mostly Hindoos. Two great bunneeas live there in fine houses. Besides which there are 18 brick-built houses; all the remaining 1,409 houses are mud-built, and the general aspect is that of a great village. Almost all the people are cultivators, whose cattle live in the town. The small lanes are waterways of depressed surface as usual.

The town-site is somewhat raised, and rainfall drains readily to two great water-holes in the land on the northern side of the town. Cultivation hems the town closely on all sides, and the sweepings are carried to the fields as manure. They have a money-value of Rs. 151 per annum, which is added to the municipal income.

This latter arises from a house-tax producing Rs. 1,800 a year, of which Rs. 1,140 is expended for wages. I could not make out that any local authority was in existence. The Sub-Inspector of Police appeared to be the chief person in the town.

324. The land of Syanah is in great part bhoor (sandy), and the town is considered a healthy spot. Fever, however, prevails a good deal, and the prevalence has increased in later years.

About one-third of the land is irrigated from the canal. The water 24 feet from the surface in the wells, is remarkably good. It has risen about four feet only, since canal-irrigation was introduced ten years ago.

325. Two public latrines have been provided here. They are commodious mud-built enclosures after the Boolundshuhur District plan, and were seen to be well kept, though not much frequented, I thought.

Eleven public sweepers are employed, and the town in regard to cleanliness appeared to be kept with much care. Nothing very unpleasant could be seen anywhere.

426. The existing school-room, the only public institution besides the thannah, was seen to be located in the courtyard of a large temple to Mahadeo,—a small room rented for Re. 1 per mensem. Fifty boys were assembled in and about the room, of whom two only were Mahomedans. A new school-house, mud-built, with a roof of thatch, is in course of preparation in another part of the town. It is provided with a commodious courtyard, and will be preferable in every way to the temple-place now in use.

GULAOTHEE.

327. Gulaothee—inspected on the 17th of February—is a town of Mahomedans principally. That is, there are 769 houses of Mahomedans, and 678 houses of Hindoos. It is in the northern part of the Boolundshuhur District, on the Boolundshuhur and Meerut high road.

The high road passes on the west side of the town at a little distance from it, and from the road there are two ways of entrance to the town, neither way is properly made or raised, and one is very low, passing indeed, through a shallow excavation of some extent. The two entrance-ways run due east through the town, converging, until they meet at the fine house of Syud Miherban Ali, who is the principal landholder of the place. His house is the only thing worth looking at in the town, which contains five large brick-built houses and 1,441 mud-built.

The southernmost entrance way, after it enters the town, is made with kunker. It forms a narrow winding bazaar-way of about 50 shops, all poor-looking thatched tenements. About the centre of the town this way sends off a branch at right angles due south to reach the southern outskirt. The branch also is made with kunker, and

has a few poor shops opening on to it. The road itself, as I have said, continues on to the zemindar's house as a tortuous unmade way of no importance.

The northernmost and low way of entrance is unmade throughout. It sends a branch southward to join the first-mentioned bazaar-way, and then passes on to the zemindar's house—a way of no importance from beginning to end. The school-house, however, a mud-built place in the old seraie enclosure, opens off it, and it leads past the town mosque.

The town contains a community of mochees living in about 100 houses on the eastern outskirt, and many shoes are made for sale on market day.

There is a sweepers' quarter of 31 houses, but the sweepers are not allowed to keep pigs.

The police office and the new seraie are outside the town on the high road, and the market is held at the same place on Mondays.

328. The site of Gulaothee, if not level, is only slightly raised, and excess of rainfall drains to excavations in the outskirt. Like almost all places of level or low site, Gulaothee has its vast excavation which here takes up all the northern border of the town, being about 550 yards long and 100 yards broad. As much trouble in days gone by resulted from the overflowing of this lake, a cutting or escape-channel has been made from it to the Kalee Nuddee, which is about two miles distant, eastwards.

At the south-western corner of the town is another excavation of moderate size. This, too, has been provided with an escape-channel which runs past the southern border of the town to reach the first-mentioned cutting.

The land of Gulaothee is irrigated by the canal, and in the past few years the water has risen in the wells about six feet.

329. The town is managed by a *punch* of six members—three Mahomedans and three Hindoos. The income, resulting from a house-tax, is Rs. 2,004 a year, of which Rs. 1,320 are expended in wages. Act XX. of 1856 is in force in the town; eight public sweepers are employed, and the town was found well kept in regard to cleanliness. The slaughter-place for bullocks is outside the town.

330. Nothing has yet been done to improve the drainage of the town-site to the excavations. The made bazaar-way is furnished with saucer-drains, which do not, however, terminate at the excavations. Some of the lanes of the town have been raised, but many are low and undrained. The northernmost way of entrance to the town was noticed to be principally useful as a way of drainage from the mosque well to the shallow excavation through which the road passes. A culvert under the high road also feeds the same excavation, so that in the rainy season a considerable expanse of rain-water and mud exists here. Then this entrance way is closed.

I think this place should be raised, the drainage from the culvert being directed to the great north excavation.

The thatch of the school-house roof was seen to be much broken. The school-master explained that the rain came in and then the earth-made floor was ruined. The old seraie, with its trees, makes a very convenient school precinct, and I think the school-house might be improved with much advantage.

The escape-channels or cuttings from the great excavations were noticed to be ill-kept, being much broken. They are essential to the well-being of the townspeople, and should be maintained with care. They were said to have been very useful in preventing the flooding of the town since they were made.

331. The people of the town looked fairly well. Children were seen to be numerous. Spleen enlargement was not complained of as a common condition, though well known.

The bunneeas of the town are building a new temple and well in the midst of the abadee, and I suppose canal-irrigation has done something to improve their fortunes. But the people generally seemed very poor, and the general aspect was depressing.

Cultivation hems the town closely, and the majority of the inhabitants are cultivators. The new seraie and thannah suburb, on the high road where the market is held, looks more cheerful, and there are a few good shops adjoining the seraie.

THE TOWNS.

332. The Towns of the Allygurh district are—

	Population.
Allygurh City (Coel), ...	57,000
Hattrass, ...	24,815
Atrowlee, ...	16,000
Secundra Rao, ...	12,530
Hurdooagunj, ...	6,210
Jellalee, ...	6,155
Tuppul, ...	5,747
Moorsan, ...	5,572

ALLYGURH.

333. Allygurh, which I inspected on the 15th, 16th, and 17th of March, is a city of considerable importance. In 1865 its population was 47,309; in 1872 the population had increased to more than 57,000, but I could not readily obtain the exact figures. It follows that in seven years the population has increased by 10,000 persons—a notable increase, indeed, and due in all probability to the admirable railway accommodation given to this city. The railway station stands within the city limits at its east border, immediately between the city and the civil station, and as regards the convenience of all concerned could not, I think, have been better placed.

334. The city site is peculiar in having a remarkably well defined hillock of considerable extent about the centre of it. Upon this hillock stands the famous mosque of Nawab Sabit Khan, of three high raised pointed domes, two flanking domes, squarish, with drooping corners, and two minars with minarets to match. It forms a very remarkable feature in the landscape as seen from a distance. Excepting the domes, it is built of kunker blocks throughout, and is a very large and altogether grand mosque indeed, with gilded points of many feet in length to every dome. Although fairly perfect, its state of repair is not creditable to the people to whom it belongs, or who worship in it, of whom I saw a great many. They complained of want of means to repair the mosque, and this is a pretty general complaint in regard to most of the fine mosques I see. And I think there can be no doubt the people of to-day are not able to properly keep the mosques built under the auspices of governors of other days. Perhaps more than necessary was spent in this direction then; certainly no pains were spared to accomplish the high setting-up of the mosques, for the place of honour in almost all the towns is so occupied. At Allygurh, as in so many other instances, this place was formerly occupied by a Buddhist temple, remains of which—as charmingly carved stones removed from the mosque site—may be seen in the Debating Society's garden at the civil station. And they are well placed so, if only to contrast by their elegance with the extreme ugliness of a costly modern fountain there. The precincts of the mosque have been much improved in late years; the site about it has been cleared, carefully levelled, and paved with kunker. A new tehseelee has been erected in the open space facing the mosque. Fine shops, as yet unlet, have been built in some places around the space, and thus an admirable centre has been given to the town.

335. From this centre a wide roadway, designed by Mr. Williams, goes straight in a north-easterly direction to the railway station. Shops have been opened in part along this road, but in greater part it is still lined by blank wall, or the sides of houses.

From this centre also another wide roadway goes down westward to join the Khyr road at the Delhi gate so called. Formerly the city had six gates at least—Muddar, Delhi, Toorkman, Sasnee, and Allygurh. With reference to the last, it is necessary to explain that the modern Allygurh city was called Coel, and is so called now by many people. Allygurh is a fort standing in the open country four miles north of the city, extensive, and important, resembling on a small scale the Fort William in Calcutta,—its ditch remarkably wide and deep, its earthworks supported by kunker block walls—all in good repair. It was built by Monsieur Perron who ruled here for the Mahаratas, during their reign of 12 years.

Of the city gates only a vestige remains in a massive kunker-built gate post, at the Allygurh Gate, supporting the tomb of a local saint, Kullun Shaheed Mirhoom. The shops run parallel with it on both sides, and but for the tomb, which is a source of income to the owners, it would have doubtless given place to a shop ere this.

There are no shops along the road going down westward, which is however a fine way of approach to the tehseelee and mosque.

336. It is in contemplation to make a third roadway from this centre space to go down southward, and then wind westward to the Toorkman Gate. This will open out a part of the city which much requires improvement, although it will not much improve the business accommodation at first, as the houses there are poor. The site there, too, is much broken by a rather extensive ravine, which in good part drains the hillock site towards an excavation on the western outskirt of the city. When the place is opened out by a good roadway, I have no doubt the condition of this ravine, at present much hidden amidst the houses, will receive attention.

337. The important and business part of Allygurh lies eastward, between the high site and the line of railway. The principal bazaar way runs from the Allygurh Gate on the north to the Sasnee Gate on the south, sending off a branch, where it crosses William's Road, eastward to the Madar Gate on the Grand Trunk Road. This last important Road, crossing the railway, passes up within the eastern border of the town, and is one of its important thoroughfares.

Again, the high road from Ramghat, very important as serving Hurdooaguni and Atrowlee, and destined to serve Jyrampoor, crosses the railway about the middle of the eastern border of the city, and so finds its natural termination in the Grand Trunk Road; but is continued onwards, too, through the southern part of the city to join the Agra Road, crossing which it continues south-westward as the road to Muttra.

338. All the road and bazaar-ways abovementioned are admirably paved with kunker and drained by quite shallow waterways at the side, and together they form the best and perhaps the most extensive town public thoroughfare with which I am acquainted in this Province. But besides these important ways many narrow streets in the town have been paved with kunker and some with brick, the total result being a fairly general condition of permanence and solidity of the open surfaces amidst the houses, which, as conducive to speedy dryness after rain, and to the maintenance of cleanliness at all times, is very advantageous to the public health. That it adds to the public comfort and convenience admits of no question.

339. That Allygurh is a place of considerable business importance is too well known to merit repetition. A very considerable import and export trade centres here. The country produce of surrounding districts flows to Allygurh; and cloth and iron,

and other products of distant places, flow out of Allygurh to the surrounding country. Much cotton is prepared for the market here, and the city contains 13 cotton screws.

The northern part of the principal bazaar-way is called Meeangunj Road; from it Meean and Perron Gunjes open out, large places of business, consisting of many shops around an open centre. The southern part of the principal bazaar-way is called Burra Bazaar—a fairly long way of good brick-built shops, which extend to the Sasnee Gate, in the southern border of the city.

In like manner, the other good roadways in the level parts of the city are bazaar-ways of some importance. Double-storied houses are pretty common; and all the houses, as a rule, are in a good state of repair. Mud-built houses are common only in the western part of the town, but there are rather extensive mud-built mohullahs in the very outskrits on the north and south too. The general appearance is decidedly that of a flourishing town containing many busy people.

340. As to numbers, Mahomedans and Hindoos are pretty equal in the city and its outskirts, but the wealth rests principally with the Hindoos. Besides the great mosque, the Mahomedans have many smaller mosques, and there are between 86 and 100 imambarahs in the town. The Hindoos have many temples. A community of about 250 houses of Jains have at least two temples—one in the north, the other in the southern outskirt—very well built and picturesque as usual.

341. A Municipal government was established in this town in 1865. The existing income, principally derived from octroi collections, is Rs. 52,000, of which Rs. 28,800 are expended for wages. It follows that a very considerable sum is available yearly for the improvement of the city.

In regard to this matter very much has been already accomplished, especially, as already described, by good road-making, and the maintenance of a perfectly respectable thoroughfare everywhere, so that even the most fastidious person may walk with pleasure and convenience almost anywhere in the city.

An efficient conservancy, as regards all public parts and places, is effected by a company of 68 public sweepers. The resulting impurities and sweepings are carried out of the city daily to the brick-kilns and there utilized as fuel, for which the municipal authorities receive Rs. 600 a year.

The collection and removal of house-sweepings is facilitated by the establishment of appointed places in all parts of the city for their temporary deposit. The celebration of the Mohurrum and Hoolee festivals, which occurred at the time of my visit of inspection, had been a cause of unusual increase of deposited sweepings at these places. But nothing very objectionable could be noticed in them, and certainly the business of removal must be performed carefully and regularly. Only in Lungah Totah Mohullah, in the southern part of the city could anything approaching to filthiness be noticed in all the city site. But there filthy pools about the wells and disreputable cesspools were seen, yet not in any much frequented part. Some shallow rainfall side-drains of roadways were seen to contain moisture of unwholesome character. It cannot be too often repeated that these drains are intended to carry away rainfall only, and that in the dry reason they should be as clean and dry as the road itself, of which, indeed, they ought to be considered part.

342. The city is fairly well lighted at night by oil lamps, of which 135 are in existence. The Civil Station partakes of this benefit.

The boundary line of municipal authority is carefully marked out by brick-work pillars, and the authority very properly extends to a considerable distance in the land surrounding the city. Admirable police stations have been built in different

parts of the city; seven octroi stations, places of less importance, have been provided. The Achul Tank in the southern part of the city, bordered by a temple of great local fame, has been improved: its side steps and walls of kunker blocks repaired. A stone-built pavilion-like structure (the necessity for, or exact use of, which is not apparent) has been erected in the centre, and canal-water is poured into the tank at intervals, to the great convenience of many bathers.

343. The city site is high raised in considerable part of its extent, and all this high part is closely packed with well-built houses having flat roofs; but the eastern and southern parts of the site are level if not low, and this is the condition of the land in the outskirts generally. So that in great part of the town rainfall drains away but slowly. This natural slowness of outfall has been quickened by shallow drainage-ways which end everywhere in excavations or tanks around the city.

These excavations sweep round the city in its northern, western, and southern aspects. About eight in number in all they are imperfectly joined by low-lying unshaped drainage ways, and as all the superfluous rainfall of the city site drains to them, it results that for several months of the year the city is in goodp art surrounded by stagnant water of considerable surface. Huge, in some instances unused, pujawahs neighbour them, and this is especially noticeable in the north-western outskirt, which is a part of much broken surface, filthy pools, and generally disreputable appearance—a part where dhobees and cloth-printers and Chumars ply their several trades, and where birds of prey abound.

A large unused pujawah there was noticeable for human bones lying down its sloping surface, things seldom seen away from the Ganges, for the Mahomedans bury and the Hindoos, away from the Ganges, burn, their dead carefully.

Here I make out that paupers who die in the city, and sometimes prisoners who die in the jail (it was the tehseeldar's statement) are buried on the pujawah top. So loosely buried in the ash-like earth, that animals and birds of prey tear them out of the earth again without delay. Not many are so buried, I believe, but I saw remains old enough, and remains new enough, to show that it is an established custom, and I think it is altogether a lamentable practise, which the municipal authorities should hasten to remedy.

344. I have, as this report will show, been able to write in terms of commendation of the condition of the actual town site, but in regard to the outskirts, always excepting the eastern outskirt, I cannot write in any tone of cheerfulness.

The excepted eastern outskirt consists, first of the line of railway, with its station, and beyond that of the civil station, an admirably kept and every way satisfactory town precinct, the civil station especially compact, its plan easy of comprehension, the private residences situated to one side of a wide central interspace; the public offices and courts, zillah school, institute building and cemetery to the other; the church in the midst, towards the end; the interspace noteworthy for smooth roads, shady trees, and generally well levelled surface.

I suppose that in greatest part this condition of perfection is maintained out of municipal funds, and rightly so, as ensuring to the city at least one wholesome precinct, to say nothing of the propriety of providing most carefully for the greatest possible respectability at the district seat of power.

But I think some share at least of a like consideration for improvement should be given to the other precincts of the city, something be done by drainage, levelling, and planting of trees, which may result hereafter in providing so much of pleasantness about the city as may tempt the people, and especially the children, to come out of the crowded site in the evening times. Sometimes in the neighbourhood of large villages, and especially of Mahomedan villages, I see the children playing in the baghs, but in the neighbourhood of towns and cities I see very little, if anything, of this, and I think it is because there are no suitable places available. In this matter nothing of walls or

flowers, or pathways, is admissible. The sole requirements, and only acceptable conditions, are much sound level surface below, and many shady trees overhead.

345. At Allygurh I think much might be done in this direction, with considerable resulting advantage to the health of the people. As a first step thereto it will be necessary, and I think is in contemplation, to drain effectually the excavations and low ground generally to which I have alluded. The natural outfall is, I think, towards the Adhowun Jheel, which commences the Seyngur Nuddee at a distance of six miles south-east of the city. Or it may be westward towards the Kurwun Nuddee, a very shallow natural water-way, 12 miles distant from the city; if so, the Kummergura Nullah, about one mile south-west of the city, might be utilized. Only a proper series of levels can determine this. The country about Allygurh is very level, and I believe that only a combined scheme of levelling and drainage will provide anything like satisfactory results. If ground is reclaimed, levelled, and planted, it should become municipal property, absolutely and undisputed, and to that end such steps as may be necessary should be taken in good time by the municipal authorities.

346. The erection of a municipal hall is in contemplation in this city. The site selected is just outside the Allygurh Gate, and is admirably suited to the proposed purpose, being the angular interspace between two roadways.

Fourteen public latrines, consisting of good-sized enclosures, have been provided at Allygurh; they stand in the outskirts of the city on all sides, are much frequented, and are certainly a great public convenience. They are mud-built throughout, and were noticed pretty generally to require re-building, or much repairs to the walls. The earth generally about Allygurh is not good for building purposes, and exposed walls should at least be made of sun-dried bricks.

A trench latrine, with mat walls, moved weekly, was also seen. The trench was noticed to be three feet deep, and one and a half foot wide. The trench should not be more than one foot deep and changed daily. Then, that form of latrine is best suited of any for the requirements of this country.

347. The principal public slaughter-place is situated at a considerable distance outside the city on the north-west side; indeed, it is outside the municipal boundary line there, and being so, I do not understand how its management can be controlled by the municipal authorities. Certainly it is very little managed, and was seen to consist of a fair-sized plot of ground, surrounded by an apology for a wall, being earthheaped perhaps two feet high. The plot was filthy with the results of the morning's slaughter left there to dry up. I understood that a tax of 4 annas per bullock and half an anna per sheep slaughtered is levied here, being I suppose in lieu of octroi on meat, and that the collection of this item of revenue was farmed for Rs. 700 per annum. I do not think an arrangement of that kind is likely to result in providing a well-managed slaughterplace.

HATTRASS.

348. Hattrass is a town of great importance; indeed, I may say I do not know of any town in the Province in which prosperity is more clearly evidenced by external appearances.

Much of this appearance of prosperity is due undoubtedly to the really extraordinary improvements which have been effected here during the past few years. But the stability of the houses, the number of the shops, and the busy aspect of the bazaar-ways testify unmistakeably to the existence of a goodly trade in many things.

349. I inspected Hattrass on the 24th and 25th of March. It is situated in the southern part of Allygurh, and is to that district what Khoorjah is to Boolundshuhur.

In 1865 the population was 23,722; in 1872 the population had increased to 24,815. This does not seem a large population for a town of which I can write that it is of great importance, but the fact is so nevertheless, for Hattrass is a town of Hindoos—of Hindoos proper. Very few Mahomedans live there, and comparatively few of the low caste people who call themselves Hindoos. And the Hattrass community, as a whole, is considered highly respectable and important.

In regard to size, the town accords well with the recorded population, for its site is not extensive. As first seen by any man in the habit of inspecting towns the impression is as of the centre of an important city set down without, or with very little of, the usual less important and depressing outskirts. And the cause of this is that up to a comparatively recent period the town was close girt by earthwork fortifications, which, having been thrown down flat, have provided an admirable surface for the creation of a wide roadway circling the town,—a roadway 30 feet in width and kunkered in all its breadth. No other town in the Province has a precinct like that, and if trees are carefully grown along its course, the result will be a boulevard grand enough to make Hattrass famous in that respect, and add something of not inconsiderable gain to its sanitary aspect.

350. The space within the circular road is close packed with houses—brick-built, flat-topped houses—many double-storied, some very large, with stone-carved fronts. And the site is divided into six principal portions, by one wide way through the centre from east to west, and two wide ways from north to south, all of which commence and end in the circular road, and all of which are of fairly straight course. Their various names, at different parts, faithfully record the business character of the town,—Naya and Purana Gunj ; Mundees Najaee, Ruie, Nimuk, Lohé, Goorhaie, Pussurhutta, Buzaza, Hulwai, Besatee ; and in addition, the Chowk Daulat Ram, where two roads cross—an open shop-lined space planted with trees and of fair size,—the whole providing a business accommodation nowhere excelled in the Province. The Goorhaie Mundee is especially noticeable for its width of tree-lined roadway.

Stone enters much into the formation of the shop fronts. Kunker-made ways properly drained are the rule.

Besides these principal ways, there are a few smaller, all well levelled and kept. And, taken in its entirety, Hattrass may be cited as a model business town.

I think it may be likened to Chundowsee in Moradabad in many respects; but here, the space being confined, very few trees mix with the houses, as at Chundowsee.

I repeat that it is a town of great importance, well worthy of much consideration and careful improvement; and it is growing.

351. As I shall have to mention hereafter, the earthworks when thrown down did not suffice to fill the ditch which surrounded them, and this is especially noticeable on the northern border of the circular road, where the ditch remained wide and deep. But purchasers were found for it, and now fine houses, in one instance at least, only to be described as palatial, are rising there on deep foundations starting from the bottom of the ditch, and so, on that side at least, this possible cause of disease will come to be remedied in the best possible way.

Outside the circular road there is an outskirt to the west which clusters along the Muttra road for a considerable distance, but is nowhere deep ; and an outskirt to the north also, of little importance and extent.

352. Eastward of the town, and near to it, there are the remains of a fort, being a broken mound of earthwork, and four corner bastions, of extraordinary size, surrounded by a ditch fully 40 yards wide on the town side. This was the noted Hattrass fort captured from the Jât governor, Dya Ram, in 1817. Now a wide way has been made up to it across the ditch. The low old building inside has been converted into a tehseelee, and the spire of a large temple there, fast falling into ruins, bears many marks of the cannon shot of the siege days.

353. The north-western outskirt of the town is a part of great respectability. A few years back it was a place of generally much broken surface, surrounding a vast water hole. This excavation has been squared and deepened, and it is now a remarkably large tank, the sides of which are to be shaped in steps of kunker blocks, twenty-two steps to each side; one side is now in course of completion. It is hoped that this tank, as yet unnamed, may serve to collect a large supply of rain water, always considered a valuable acquisition in the neighbourhood of a town. Just now it is dry, however, and a well sunk in its bed through sandy soil shows the water to be nine feet below the surface; so that unless the bottom can in some way be made less pervious, it seems likely that the tank will be empty for some months of the year. The site around the tank has been carefully levelled, and at its west border a remarkably good municipal hall has been erected in stable brickwork. Its three large and well furnished rooms provide admirable accommodation, not only for the public meetings of the municipal authorities, but also for district officials who may visit the town. Its site is enclosed by an ornamental wall of open brickwork, and the enclosure has been planted with trees.

354. On the southern side of the tank a school-house and a clock-tower have been built; also both in good brickwork.

The school-house has a good double centre room, smaller rooms at each end, and a verandah of round arches on all sides. The floor of stone is well raised, the ventilation above is good. The clock-tower is a fairly ornamental structure, carrying a chiming clock said to have cost about Rs. 2,000. It is undoubtedly a very fine clock, but the tower above is pierced by many openings which admit wind and dust. The door of the clock-case, having broken from its hinges, was seen to be lying to one side of the clock, and white dust lay thick everywhere upon the works. The movement is originated by heavy weights moving downwards in the tower and suspended by metal ropes, and all the works looked very substantial.

Put up only quite recently, its chiming part has gone out of order already The faces of the clock are not in any way protected from the weather outside. Altogether, I fear, unless something very special is done for its careful protection and management, this clock will not long serve any useful purpose. That it might be made to go well and strike well for a comparative permanency I quite believe, for it is admirably housed. And I think the municipal authorities would do well to give some attention to this matter, if they desire to point to an evidence of civilization at Hattrass so advanced as the possession of a good town-clock. Up to the present time, I think the perfection of the striking part of a public clock is of most importance in these provinces. At Hattrass, of many Natives standing round, including important native officials, not one could read the time by the clock. I understood that not one of the resident members of the municipal committee could read it.

355. A municipal government was granted to this town in 1865. There are six resident members of the committee, all Hindoos, and influential men in the town.

The existing revenue is about Rs. 41,175 a year, of which Rs. 36,775 is derived from octroi. Of the total, about Rs. 19,000 is expended in wages; it follows that about Rs. 22,000 are available for town improvements and their maintenance. This is, I think, by far the largest revenue for a town of 25,000 inhabitants in the province.

356. The municipal limits are being carefully defined by means of stone pillars, 25 in all, set up around the town. Seven octroi stations have been provided, and five police stations, all built of brick and kunker blocks.

The conservancy of the town is effected by a company of 55 sweepers, 22 of whom are attached to the public latrines. Of these latter, 12 have been provided in the outskirts of the town. They were good-sized enclosures, with the ordinary mud walls; now they are narrow, long, masonry, unroofed, structures, divided into box-like cells, those for men supplied with stand-up places. They are constructed of brick and lime throughout, and if they were much used, they would soon become a dire nuisance. But

I think they are not much frequented. Judged by the collection of resulting impurities, at the latrine I inspected closely, I should suppose about 20 persons had visited it from daylight to 10 o'clock in the morning. Certainly they cannot be counted a convenience or comfort to the people. In this respect the old enclosures, if properly fashioned and kept, would be far preferable. As it is, I believe a great number of people must go out for this purpose into the neighbouring country somewhere. The town itself, and its outskirts everywhere, were found to be remarkably clean. Nothing approaching to the nature of a nuisance could be seen anywhere. The sweepings are carried away daily to the brick-kilns and are sold for Rs. 300 per annum.

357. In regard to drainage. As yet this important point has not received the attention it merits. The town site is fairly level throughout, but not low, and superfluous rainfall has been directed without difficulty to such excavations as exist in different parts of the town site; when these excavations overflow, the great fort ditch receives the surplus, and has never been known to overflow.

I have already alluded to a comparatively small ditch which formerly surrounded the town fortifications. This has been in good part filled up by the throwing down of the earthworks, and on the north side of the town will soon be quite filled up by the foundations of houses. But on the west and south sides of the town, the ditch remains as an excavation of varying width, and on the eastern side it remains almost in its entirety, although it cannot easily be found.

Here I must explain that many years ago, the eastern wall was thrown down, and the town extended, as Naya Bazaar, in that direction almost to the fort ditch. The new circular road includes the Naya Bazaar, part of the town. But the old ditch remains hidden amongst the houses. Its commencement may be seen as a large excavation on the town side of the circular road on the south side of the town; then houses intervene. But searched for it may be found as a wide excavation extending, with here and there a break—where a road passes it or houses have been built—down nearly to the northern part of the circular road.

On the eastern side of the town, just outside the circular road, the site for a very considerable extent is much broken by excavations, the principal part and centre of which is called *Killa durwaza Dighee*. The drainage of the town site is directed to this *dighee*. Evidently some endeavour has been made to bring it at some former time into a decent shape. But the endeavour soon failed apparently, and to the present day the general aspect there is depressing and unsanitary to a degree.

The *dighee* was noticed to contain filthy water, five feet in depth. With reference to the perfecting of the fine new tank on the north-west of the town, it might be advantageous to investigate the cause of this, by sinking a well through the bottom of the *dighee*, when it will be dry—in May and June,—and noticing the condition or peculiarities of the sub-soil.

358. I think the measure most likely to benefit the inhabitants of Hattrass, from a sanitary point of view, would be the filling up and levelling of all the excavations above mentioned; earth for the purpose in abundance may be found in the fort mound. I suppose the ditches at least are nuzzool. If so, their reclamation would produce a property of considerable value for the municipality, and especially the levelling of the old ditch amidst the houses would result in providing a long open space for a new roadway, or it might be planted with trees and kept as a market-place. As it at present exists, this long excavation must collect a large quantity of stagnant water in the rains, and become a source of ill-health to many persons.

The excavations outside the circular road, after they have been levelled, should certainly be planted with trees.

359. There is no butchers' slaughter-place at Hattrass; indeed, cattle are not allowed to be killed anywhere near the town. On the contrary, brahmanee bulls, to the number of about ten in all, wander at large about the town and its outskirts—very fine animals they are, and believed to be useful for the improvement of the breed of cows in

the neighbourhood. Certainly an animal of that character seems to be ill-placed at large in a crowded bazaar, but the inhabitants, as a rule, do not think so. I should suppose injury to person and property must result from this custom sometimes, and doubtless, as the rights of individuals become better established and equalized, the municipal authorities will be able, if they please, to put the bulls outside the town.

360. The water supply at Hattrass is not good. As a rule, the water of the old town wells is brackish; the water of the Naya Bazaar part and in the outskirts is good in regard to taste. The water in the wells stands at about 40 to 45 feet from the surface.

The greatest advantage of the completion and perfecting of the new tank will be, that by sinking wells near to it, a superior drinking water may be obtainable. But I think it would not be right to drain to the tank any part of the town site contained within the circular road. The rainfall drainage there should be directed to the fort ditch as heretofore. I do not think that is a very desirable method of getting red of it, but it is the only available method. This excavation, badly described as a ditch, is of great extent, and was seen to be perfectly clean and dry. I think it could scarcely overflow, and if it did, the water could find its way eastward towards Mendhoo, but would not return into the town.

361. In regard to communications. The highway from Agra to Allygurh, and the highway from Muttra to Khasgunj, cross at Hattrass, making it a very important focus of traffic, a traffic particularly important in regard to the second road mentioned, which is much frequented at all times, and especially by pilgrims, who pass on it in great numbers from Central India to the Ganges at Soron. And there is a regular bullock train service of 50 wagons on this road, by which passengers are carried at as low a rate as six miles for 3 pies between the town and the railway station. That was the local statement. I know the ordinary charge on other roads is 3 pies for one mile. The railroad has a Hattrass Road Station, but it is $5\frac{1}{2}$ miles distant from the town. Nevertheless, a very considerable amount of goods traffic has been established at the station. What the amount of goods and passenger traffic would have been by this time if from the first the rail had served the town closely, it is difficult to say, but certainly it would have been considerably greater than now, to the benefit of all concerned. A real Hattrass station bordering the town would have been a busy place, I have no doubt, for of all the towns I have inspected this year Hattrass has appeared to me to merit this boon most,—as most of any likely to make advantageous return. I think it is in contemplation to run a tramway from Muttra to Khasgunj, and I think there can be no doubt the result will be good, if the scale of fares can be set very low—say, two miles for one pice.

ATROWLEE.

362. Atrowlee, which I inspected on the 12th of March, is a large town of the Allygurh District, situated 16 miles east of Allygurh.

The high-road from Allygurh to Ramghat passes the town, at a little distance north of it, but the town is in communication with the high road by three kunker-made entrance ways. The Oudh and Rohilkhund Railway has an Atrowlee Station, but it is five miles distant from the town northwards, and the inhabitants call it the Raepoor Station, that being the name of the village lands in which the station stands. As yet the station is in connection with the town only by an unmade tortuous way, which increases the distance to be travelled to six miles. Even when the station is in direct communication with the town, I do not think the Atrowlee people will much frequent it. the Town is in connection, as regards business relations, principally with Allygurh and Hurdoagunj, and indeed Atrowlee is a much frequented town, by reason especially of a far-famed bullock mart held there every Monday, to which people from all parts of the surrounding country come to buy and sell bullocks.

363. If the railway instead of running straight from Allygurh to Rajghat had curved a little so as to serve Hurdooagunj and Atrowlee closely, the increase of line required would have been one mile. By an increase of three miles in all, it would have been possible also to serve closely the growing station of Jyrampore (destined probably to become more important even than Roorkee) and yet to have carried the line across the Ganges at Rajghat. If that course could have been followed, I believe the line would possess three fairly busy stations between Allygurh and the Ganges, instead of the quiet rural places they now have.

In reference to this matter (and every well-wisher of the country would desire the railroads to prosper, as a most potent means of civilization and improvement), it cannot be too often repeated that the men of progress and travelling propensities live in the market towns. That for hundreds of years the surrounding villagers have brought the produce of the land, which alone forms the export trade of the country, for sale in these towns on market-day. That accumulated there, the wealth of produce has no chance of being carried away by the railroad, as against the vested interest and strong fraternities of cartmen and bunjaras, unless, in addition to the money gain, the utmost possible convenience for the receipt and delivery of the goods is provided. The cartmen and drivers of laden animals serve the merchant at his door-step. The nearer the railroads can approach to that of convenience, the more certain will be their success.

And it is the same with passengers. Between Allygurh and Hurdooagunj and Atrowlee, and *vice versâ*, passengers are always numerous, but very few ever think of travelling by rail, because it is inconvenient. If he can choose his time for starting, a Native thinks very little of walking 16 miles; indeed he thinks much more of the lonely three miles or six miles from the rural station to his town, which he may have to traverse in the heat of the day or at night time.

And I believe the railways never will carry the crowds of Native passengers they ought to carry, until they can set down their passengers actually within the limits of the towns they profess to serve.

Atrowlee is especially a town likely to have repaid a close service by the railway. It contains more than 16,000 inhabitants, two-thirds of whom are Mahomedans, always more ready to travel than Hindoos; and, besides the important Monday bullock market, a market for country produce is held there on every remaining day of the week. By the census of 1865 the population was shown to be 15,052, so that in the interim the population has increased by about 1,000 persons.

364. The three ways of entrance to the town from the Allygurh highway converge to an open space fronting the tehseelee. This open space is the market-place or mundee, but the bullock mart is held outside the town, on the Allygurh road and its neighbourhood. A kunker-made way rises southwards through the centre of this space to reach the tehseelee gate, the tehseelee being high-placed on the best site in the town, where formerly a fort stood. Trees have been planted along this roadway, and in time the space will be a pleasant market-place. The tehseelee consists of a solid centre building, recently surrounded by a fine enclosure wall, having rooms on its inner side for the accommodation of the tehseelee and police officials. The tehseeldar's house stands outside on a spot higher even than the general site of the tehseelee, and from it a very fair view of the town may be obtained. The town houses are seen to be wide spread, many brick-built, with flat roofs.

From the mundee eastward, two bazaar-ways go off from the same place. One turns almost immediately south, and is called Mundee Bazaar; the other goes eastward for some distance and then also turns south: it is called Burra Bazaar. In the southern border of the town these two bazaar-ways join by a curving road, so that the general bazaar-way of Atrowlee forms an oval.

The seraie, rather extensive of its kind, but not otherwise noteworthy, lies between the two ways in the very centre of the town, and there is a thoroughfare from one bazaar to the other through the seraie.

365. This oval bazaar way has been admirably paved with kunker throughout. It is widest in the Burra Bazaar, and the best shops are there; but it is fairly wide, and straight, as its curved course will permit, throughout, and has shops everywhere along it, excepting at the curving southern end. The shops of the Mundee Bazaar are poor-looking, and the rooms behind them appeared to be ruinous.

A considerable trade, however, in cotton and iron centres at Atrowlee; many brass vessels are made, much country produce generally comes to the place. In the Burra Bazaar there are some good houses, and; at least, one especially fine mahajun's house.

The less important ways in the town have been in many instances levelled. The houses everywhere away from the principal ways were noticed to be often in a bad state of repair, and ruined, untenanted houses seemed to be so common in the outskirts, that I found it difficult to believe that the population could really have increased in the past seven years; but the town authorities were certain on that point. However, some new houses, too, were seen to be building.

The southern part of the town is mostly a part of agriculturists,—a part of mud houses, to which many bullocks come and go daily, as the cultivators of the extensive town-lands live in the town. And the public ways there are also village-like.

366. The land about the town is extremely fertile, being highly manured, and on all sides very fine crops were seen to hem the houses pretty closely,—of tobacco especially fine. But, between the houses and the crops there is a fair width of broken neglected ground, for the improvement of which nothing has yet been done. And just outside the town, southwards, this region is wide—a place of heaps and holes bordered by a colony of mehtars, who keep about 200 pigs, which roam at large, and make it quite impossible ever to bring the place to a decent aspect. This is a rather novel feature in a town where Mahomedans predominate. The keeping of pigs, as they are kept in this Province, is not admissible in a town which professes to effect a decent conservancy, and I now rarely see them in a town which has a resident municipal government. Here, however, although public opinion is adverse to their retention, they are as numerous as ever. Their existence, I suppose, accounts for the mere pretence of public latrines here. Three were said to exist, of which I saw two—fair size enclosures, the mud wall about them ruinous, the inner surface unlevelled, the wide entrance way unscreened, no attached sweeper in attendance, and apparently very few casual visitors. And they are placed too far from the town.

367. A municipal government has been in existence at Atrowlee since 1865. The octroi revenue averages Rs. 6,000, of which Rs. 3,084 are expended in wages. The octroi stations around the town are considered to mark the limits of the municipality, but they are too far apart to effect that purpose properly. Nothing is more necessary for the effectual improvement of a municipal site as a whole than a plain and permanent marking of its boundaries everywhere.

368. Eighteen public sweepers and six women sweepers are employed by the municipality, and the town inside is well kept in all respects. Nor, indeed, in respect to cleanliness, as a rule, are the outskirts, and I followed them all round, anywhere very objectionable, excepting at the place of pigs.

369. The site of the town is slightly raised everywhere; some part of the site is high, and rainfall drains to the excavations to be found on all sides of the town. When they overflow, the water drains slowly, principally by the roadway there, southwards. The town site and outskirts might be drained thoroughly to the Kallee Nuddee khadir, about 2½ miles distant, in a westerly direction. And if that could be done effectually, the many places which now hold stagnant water around the town in the rains might be levelled, or, at least, in good part raised, with a resulting improvement in the climate of the town.

370. The water in the wells at Atrowlee is 20 feet from the surface, and, as a rule, very good. The water of a few wells is brackish. There is no canal irrigation anywhere near to Atrowlee.

The people enjoy good health as a rule. In the autumn, as usual, everywhere fever prevails, but is not persistent. Enlargement of the spleen is a very uncommon complaint, and I could find no instance of it. A woman, said to be so afflicted as the only known case, was produced, but her complaint was found to be dropsy,—I think, ovarian.

371. The school-house at Atrowlee is a church-like building of brick, with many windows, situated at the side of the central road of entrance near the mundee. It is a very fine school-house for a town of this size, and I was surprised to hear that only 51 boys attended. This may be a mistake, as the master was absent, it being the mohurrum holiday, but it was the tehseeldar's statement. Many Mahomedan boys are taught at private schools in the town, and the reading of the Koran is carefully insisted on by parents. I noticed that many of the school-house windows were broken, and inside the good room looked untidy from dust; the durree carelessly thrown to one side. I think of all towns the school management should be best, the schoolmaster most carefully selected, where the Mahomedan element prevails.

Behind the school-house are a number of ruined uninhabited mud-houses; their removal would greatly improve the school precincts.

372. A butchers' slaughter-yard has been established at a considerable distance outside the town, indeed far beyond the municipal limits, and in the midst of the khets. Probably in consequence of the removal from supervision, its wall was seen to be low and in part broken down, its very wide way of entrance unscreened. Its surface was remarkably filthy with the results of the morning's slaughter, left there to dry up; many bones and horns lay outside; many birds of prey frequent the place, which, when it can be noticed, is proof enough in itself of careless management, in any slaughter-place.

373. There is no dispensary in this town. At, or just beyond, the southern extremity of the Mundee Bazaar there is a building admirably suited for that purpose. It was utilized as a police office, now removed to the new tehseelee. I think a dispensary in this town would be of much more use than the dispensary at Khyr in the same district. Khyr is a quite small and unimportant town of perhaps 4,000 inhabitants, and the dispensary there, as I saw it a few days ago, is an absolutely neglected place, its enclosure wall fallen down, the house itself inclined to fall into bad repair. The attached Native doctor, a young man of no local fame, who treats very few patients, and could produce no medicines which I could recognize as likely by their administration to do anybody good.

374. I should add, that all existing improvement noticeable in this town, even to the making of the entrance way, has resulted from the establishment of a municipal authority there, and I think the improvements still required may be gradually effected by the same means, wisely directed and encouraged.

SECUNDRA RAO.

275. Secundra Rao, inspected on the 19th and 20th of March, is an important town, situated in the south-east corner of the Allygurh District. The Grand Trunk Road passes the town at its west border. The town site includes an area of considerable extent, and it has a high part to the north, and a level, or low part, to the south. Eastward the site is bounded by a great lake—a lake about 600 yards long, and 500 wide, at this time of year. In the rains it extends eastward fully four miles, even to beyond the village of Burae Shahpore, and then it is one of the most considerable lakes in the Province. To this lake all the land drains for many miles around, and from it the Eesun Nuddee takes its rise. The lake even now contains a considerable depth of water, and fish are plentiful in it.

The land of the Secundra Rao Pergunnah, generally, is low-lying, and contains much reh, salt, and saltpetre. The flowing rains of ages have, I suppose, brought these salts together in and about Secundra Rao, where, by evaporation of the stagnant water, they have been deposited in great quantity.

376. I think there can be no doubt that the high part of Secundra Rao is in great part artificial, the earth for its raising having been taken from the bed of the lake. This, however, was the work of old days Carved kunker blocks may be seen in the suburb between the hillock and the lake, and perhaps—as at Boolundshuhur—a Buddhist temple may have crowned the height; certainly a fort stood on it in the Rajah Bheel's time. When the Mahomedans came into possession they had a fort there, too, and a mosque was built. Now the high site is occupied by a tehseelee, a thanah, and a school-house.

377. The town is entered from the Grand Trunk Road by two ways. One to the north, well raised and made, which leads to the tehseelee, on the high part of the site. The other leads, as a bazaar-way from the commencement, into the business part of the town. It quickly turns, at right angles, southwards, then again eastwards, then again southwards, and is altogether, I think, the most winding principal thoroughfare of any town I know. That is the character of all the public ways of Secundra Rao, so that it is quite impossible to describe it in a few words. One important way comes down from the tehseelee neighbourhood with a curving course, to end in the principal way not far from its commencement. If it could have been continued to the Grand Trunk Road, the plan of the town would have been much simplified, and its ventilation improved.

378. There are many ruinous houses in the town, and especially in the Paithan quarter, in the neighbourhood of the old fort site, where there are many fine brick-built houses, in ruins, and especially the very fine old house of Nawab Poordul Khan. They are the ancestral properties of ruined families, who have nothing now to spend on repairs.

But new houses are growing up in the town in many places, and especially in the neighbourhood of the new road described above as curving down from the north to meet the principal way. There, at least, five new palace-like houses of Sahokars, several stories high, are in course of completion in different places. The shops on that road as yet are poor, but the way has been well made with kunker. The zig-zag principal way has also been well made with kunker in great part, and is being so continued even to the southern outskirts. The shops on it are numerous, often very good. The general aspect of Secundra Rao is that of an improving town, the business of which increases.

379. It is governed by a municipality, which was established in 1865. The municipal income, derived from an octroi, averages Rs. 6,370, of which about Rs. 3,000 are expended in wages.

Fourteen public sweepers are employed. Their work is well controlled, and the town everywhere was found remarkably clean.

There are two public latrines—simple enclosures—in the outskirts. They are not much frequented. The one I saw was noticed to be neglected. A sweeper was trying to make it presentable by hastily scraping together the scattered impurities and throwing them over the wall.

With this exception, I saw nothing which could be described as objectionable from one end to the other of the town. On the contrary, I formed the opinion that it is a remarkably well kept town. Sweepings are carried out to the fields, and especially to gardens which border the lake on the town side. The butchers' slaughter-place has been established in the fields at some distance outside the town. The wall about it is very low, and the enclosure was filthy with the results of recent slaughters left there to dry up.

The principal ways of the town are lighted on the dark nights of the month by 30 lamps in all, well fixed to the houses.

I was sorry to hear that, from insufficiency of revenue, it has been determined to discontinue the lighting.

380. The Ganges Canal passes the town at about a mile and a quarter from it westward. The result has been that more than ever now water accumulates about Secundra Rao. Water which used to flow away westward to the Rhind must now come eastward to the great lake, to find its way into the Eesun.

The greatest portion of the town-lands is irrigated by the canal, the water in the wells has risen about 12 feet since that was effected, and the dampness of the local climate has been much increased. Fever disease prevails, and many persons die of fever at Secundra Rao every year. The population in 1865 was 12,431, in 1872 it had become 12,530—showing a very poor increase.

I could not make out that spleen enlargement was a common condition. Of 60 boys seen at the school, all appeared well, and the people generally looked well. But the complaint of the undue prevalence of fever was general and cannot be doubted. In the rainy season, so much water collects about the town at times, that the Grand Trunk Road is the only traversable way in the neighbourhood.

The southern border of the town is especially liable to flooding. It is in contemplation to make a well-raised roadway there. Perhaps the drainage of the surface there might be directed to the lake; certainly the shallow but extensive excavation on that side much requires improvement.

381. The water in the wells at Secundra Rao is, as a rule, brackish. But in a few wells, from which water is much drawn, the water is fairly sweet. To a stranger, all the water tastes brackish, from excess of salts. But the inhabitants seemed to be satisfied with the water of their few good wells.

Saltpetre and salt are manufactured in considerable quantities about the town, but especially in the neighbourhood of the raised site about the foot of which there are great heaps of saltpetre and salt earth which have been gradually collected. Wells of very brackish water neighbour the mounds, and all that is necessary to ensure an endless supply of saltpetre and salt is to water the mounds from the wells. The drainage is rudely filtered and left to evaporate in shallow tanks conveniently placed, and the resulting salts are separated by crystallization as an after process. Indigo, too, is manufactured in considerable quantities in the Secundra Rao neighbourhood, for the trade of the town is principally in saltpetre and indigo. Cotton also is exported in some quantity.

382. The tehseelee is a respectable building, enclosing a small square as usual. The police office near to it is a newly built place, very good, with a lock-up like a little prison, in the centre of the enclosure. Detached, well ventilated, I have never seen a town lock-up so worthy of praise. Unfortunately the lime for this building was prepared with brackish water.

Mortuary registration was found to be neglected here. Copies of only three months' returns for all 1872 could be found, and even the heading of the register (Form A.) was found altered, the name of the village in which the death occurs being omitted.

The school consists of a small yard, with the principal hall to one side, and smaller rooms around. It is well placed as to site, and has been recently purchased. The roof of the school-room looks as if it would soon fall down. Although it is very long, it has only three beams to carry it. The boys are taught English; the school seemed to be well conducted, and was admirably kept in regard to cleanliness.

There is a dispensary at Secundra Rao. It consists of a square brick-built house, situated in an open space behind the main bazaar way, pretty near to the Grand Trunk Road. Its site is low, and behind it there is a large excavation in which much water collects in the rains. Nothing has yet been done to improve the site or plant it. The

municipality grant Rs. 120 a year for the purchase of medicines, and Rs. 120 a year for a vaccinator. About an average of ten patients daily attend the dispensary, which seemed to me a rather poor, ill-kept place.

383. Besides the Grand Trunk Road to the west, the town site is bordered to the north, by the new highway which passes from Muttra to Khasgunj and Soron, perhaps the most important way of the Doab from side to side, and always frequented by pilgrims in great numbers. It follows that many travellers visit Secundra Rao. For their accommodation the town possesses four serais: one inside the town, and three on the Grand Trunk Road.

The first is small, but seemed to be popular; its open space was much littered with building material, and it was much crowded by a wedding party, so that I could not examine it well. Of the latter, all commodious open spaces, one is a very large serai indeed, with a large mosque in the centre—the principal mosque of Secundra Rao. Its rooms for travellers are mud-built and its surface is undrained.

384. The principal sanitary evil at Secundra Rao is excess of moisture, and the creation of the canal has increased this evil, so that now, in the lower parts of the town, at some places, the water stands in the wells at only a few feet from the surface. In the rains the water is not more than four feet from the surface, and now grain pits cannot be made at Secundra Rao. The work of raising and making the public way, now proceeding is an effort in the right direction. And I think, that all of the spare income available, should be devoted to the raising and draining of the site to the lake, and especially to the raising and draining of such places as the excavations near the dispensary and in the southern outskirt.

I cannot say whether the more perfect drainage of the lake to the Eesun can be effected; but if it can, I think it would be a means of very much improving the Secundra Rao site, and of benefitting the health of its people.

HURDOOAGUNJ.

385. Hurdooagunj, which I inspected on the 11th of March, is a town of Hindoos, in the Allygurh District, about six miles north-east of Allygurh. The municipal limits include the gunj only and its surrounding abadee, containing a population of 4,657, of which only about 200 are Mahomedans. Within the town lands, at different places, are eight small villages, one of which is Hurdooa itself, containing a population of about 800.

Hurdooagunj is principally noticeable as the place of residence of many sahokars and Hindoo merchants, who live in large brick-built houses, situated, to the number of about 200, mostly in the eastern quarter of the town.

386. The town is easy to describe. West of the town site the kunker-made high-road from Allygurh to Ramghat passes at some little distance. From this road no less than four ways of entrance have been provided to the town, one at each end of it, and two between, all in good order and raised on earthwork. Two of these entrance roadways have been made with kunker, and a third is about to be metalled. They all lead to one and the same place, the gunj, which is a remarkably wide bazaar-way of considerable length. The shops, brick-built, would be decidedly good-looking but for the poor old thatch and sirkee sunshades which front them. The roadway is metalled, with properly shallow drainage ways on both sides,—a remarkably neatly kept and pleasant looking business way indeed. To its southern extremity the roadway widens still further, assuming a somewhat circular form, and there in the centre three trees were planted in a line last year, but two of them have already been destroyed. Trees would greatly add to the pleasant appearance of the gunj, and are sources of health. I know it is not always easy to grow them exactly at the place required. Here they had been carefully protected by brick-made *taonlas*, but the enclosed surface was pit-like below the surface of the surrounding roadway, and likely in the rains to harbour much

water, which is hurtful to quite young trees. Also much rubbish was seen to lie in the pits, and I rather think the Hindoo shop-keepers did not properly care for the trees, possibly because they were neems. Perhaps if the pits were filled with good earth and peepuls planted the result might be different.

387. The abadee is long and narrow, being clustered east and west of the gunj way, which runs from north to south, and with its immediate neighbourhood has a fairly well-raised surface. Everywhere else the surface of the town site, where not level, is low. This lowness of site may be especially seen on the western side, where the entrance ways pass in, raised on earthwork. The eastern part of respectable mahajuns' houses is fairly level, but it may be safely said that in the rainy season in all the town-site, excepting the raised kunker-made ways, there is much trouble of mud and water. The unmade roadways are well kept and levelled, and are nowhere of any considerable length, owing to the narrowness of the town.

The houses generally are in a good state of repair, and some remarkably good houses, even stone-faced, were seen.

388. A municipal form of government has been in existence at Hurdooagunj since 1865. The income last year was Rs. 4,420. It was more, but a decrease in the rate paid on grain lessened the income considerably. The expenditure for wages is rather more than half the existing income.

The work of improvement which has resulted, consists principally of road-making as described; and about twelve important wells in the town have been improved at the cost of the municipality, by the addition of raised terraces about the mouth of the well.

The conservancy of the town has been carefully attended to, and nothing objectionable on this score could be noticed anywhere in the town. Six public latrines have been provided at Hurdooagunj, being enclosures of fair size, with mud-built walls in bad repair. They were said to be much frequented, but I think that is hard to believe with so numerous a company of pigs in existence, as described below.

389. In the outskirts of the town this attention to conservancy is neglected, and about 200 pigs—kept by the mehtars, who inhabit a filthy and neglected region in the very south-eastern limit of the town—perform the work of scavengers. This south and eastern outskirt as a whole is an abominable place. In part it has been extensively excavated by brick-makers, in part it is heaped high with earth brought by saltpetre-makers in years gone by from the surface of the enclosures and court-yards of the town. The pigs roam there at large, and break the ground more and more. It is a place of sad aspect, and in the rainy season so much water collects here that no way out of the town on that side remains.

390. The trouble of waters is a general condition all round the town after heavy rain, and but for the raised roads leading to the Allygurh highway, carts could not go out of the town then. These roadways have been properly pierced with wide culverts, which allow the collected waters of excavations on the west side of the town, one very extensive, to flow together. When they overflow the water passes slowly southwards, towards jheel land about three miles distant in that direction. But its course is hindered by a rajbuha of the Ganges Canal, under which a syphon drain, described as inefficient, has been provided.

There was a very general complaint of the deplorable state of the outskirts and low parts of the town everywhere in the rainy season, and the appearance of the surface justifies the complaint.

By reference to the district map it may be seen that Hurdooagunj is situated in country rather noteworthy for jheels or low-lying tracts, which are the commencement of the Seyngur Nuddee. The Seyngur takes its rise from the Adhowun Jheel, seven miles south of Hurdooagunj, and I do not think it is possible to drain the town site in a southerly direction. Four miles due east of the town is the Kalee Nuddee, with its wide and comparatively deep khadir, certainly many feet below the town out-

skirts, and the site I believe might be thoroughly drained in that direction. But unfortunately the Ganges Canal, with its great earthworks, intervenes in that direction, passing through the country about a mile east of the town.

The resident municipal authorities were of opinion that rain drainage in part used to pass eastward to the Kalee before the canal was made. Now no water can pass that way.

In enquiring into this matter I noticed that the tail-waters of a rajbuha flow into the canal in the neighbourhood of Hurdooagunj, and I think it might be reasonable to suppose it possible to drain the town site into the canal. But I have no knowledge of the condition of the canal after heavy rainfall.

391. A considerable trade, especially in cotton, centres at Hurdooagunj, and the merchants of the place are in some instances considered very important men of business in the Allygurh District. The Oudh and Rohilkhund Railway has a Hurdooagunj Station, but it is three miles north of the town, and not yet joined to it by a roadway. The Hurdooagunj people call the station the Rampore Station, that being the name of the village it adjoins; and as Allygurh, only six miles distant, is in communication with the town by as good a roadway as the country possesses, it is not likely that the Hurdooagunj Station will see much of Hurdooagunj people or merchandize.

392. The police office at Hurdooagunj is situated on the Allygurh road, outside the town. Brick-built, comparatively new, yet the arched roofs leak. There is no roof ventilation in either lock-up; an antelope was seen to be kept in the women's lock-up. The morturary statistics were seen to be carelessly kept, the register in pieces, the office copies of Form B. not to be found for several months of the past year. For the current year only six forms have been supplied, which makes it impossible to bind at once the forms into a book of twelve for the year, as should be done, and is done in other districts. Twelve forms in duplicate are supplied from the Government Press yearly for every circle. From what I see in this district I think it would be advisable to stitch the forms into sets of twelve, with a cover of coarse native paper, and I will endeavour to have it so arranged.

393. I should not forget to menti on that 40 lamp-posts, carrying English shaped lamps, have been erected in this town. They may have been neat once, but their condition now is lamentable. The posts of thin wood are shaky, the lamps rusty and dirty, and sometimes crooked, so that they by no means improve the appearance of the town.

The school-house is rather a poor place, of small, low rooms, in a house on the gunj road; 51 boys attend.

394. Nearly all the town-lands are irrigated from the canal. Since the canal was made, the water in the town wells has risen 15 feet, and it now stands 10 feet from the surface. In the rains, from some wells, it may be dipped with the hand.

Fever disease is a common and general complaint here in the autumn season, but spleen enlargement is not common; no boy in the school could be found so affected. The people, as a rule, looked fairly well, but many persons with sallow faces, betokening a poor state of health, were seen.

395. I think it very desirable that an earnest endeavour should be made to improve the surface drainage of this town site, at least to the extent of removing all stagnant surface moisture at all times. Then the surfaces of excavations may, at least in part, be raised, and perfect drainage ensured.

JELLALEE.

396. Jellalee is a town near the centre of the Allygurh District, and just 11 miles east of the city of Allygurh. I inspected it on the 14th of March.

Although in the midst of the district, it is strangely isolated, for it is not in communication with any other town by a shaped roadway of any kind. And further, it stands between two unusually high raised rajbuhas of the canal.

It is essentially a town of Mahomedan Syuds of the Sheea persuasion, and the Mahomedan inhabitants are as five to two of the Hindoos. There are not less than 90 imambaras, or Mahomedan places of assembly for worship, in the town. Thirty of these are important, and one is a very fine imambara indeed.

There is no government school in the town, but there are four Mahomedan schools, in which the Koran is taught.

The men of the place are, as a rule, a fine-looking, intelligent people ; indeed I have no recollection of ever having inspected a town where this was so marked a feature of the place as at Jellalee. Not less than four tehseeldars, now in the Government service, have their homes at Jellalee; some families have given officers to the cavalry. Altogether they are, I think, a very important community.

A famous Moulvie, Mokurrum Hossein, lives there, and preaches every Friday at the principal mosque. Indeed, I think it may be true that Jellalee is one of, if not the, most important centre of Sheea Mahomedans in the province. I had intended to inspect the town on the day of the mohurrum. I need scarcely say that would have been impossible, as Jellalee is most celebrated for the number of its tazzia processions. However, I saw the people just after the mohurrum, when they are dressed and looked their best—with the result, in opinion, recorded above.

397. The town site is high raised, almost a hillock. The houses, intermixed with the imambaras, stand close set all over the hillock. All the public ways in the town are remarkably narrow ; not one of them is made or shaped in any way ; not one runs a straight course for any considerable distance. The town has no plan at all, but is an incomprehensible jumble of houses and narrow lanes.

On the west border of the town, just beyond the high site, are two shallow excavations, with a brick-kiln between them, said to have resulted from brick-making operations for the canal.

All round the west and south border the land is low, and a poor roadway has been raised there, which serves in some measure as a way of entrance to, or passage round, the town in part. But the road is unmade. The town has no bazaar, properly so called, but shops are scattered in different parts of the town, which has no trade of any kind. The business of religion and of education seems to be most thought of. The principal inhabitants are landholders, the cultivators live in the town, and many bullocks are driven in and out daily.

398. The town management is in the hands of two persons, one a Mohomedan, the other a Hindoo. They called themselves the *punch*, but I think they do not endeavour to improve the town in any way. An income of Rs. 150 per mensem results from a house-tax, of which only Rs. 96 is expended in the town. Four public sweepers are paid, but they appear to do nothing.

The town was seen to be an utterly filthy place everywhere. The southern outskirt, close to the houses, is a public latrine-place, filthy beyond description. The narrow ways of the town are very unpleasant; drainage from wells, and drainage from private latrine-places, runs on to them; even from the principal imambara a horrible drain runs out to the public way. Cesspools of the worst description abound. I can safely say that I have not seen a town so neglected, or one in which it was so unpleasant to walk, as Jellalee, for years past.

Two public latrines once existed, but they have fallen down, and no person frequents them; a sweeper receiving two rupees a month is attached to each, but he has nothing to do.

399. It must not be thought, from this account of neglected condition that the townspeople are all poor or their numbers decreasing. I have described the principal people—the population in 1865 was 6,155, in 1872 it was 7,050.

The zemindars and other influential persons acknowledged that the condition of the town was disgraceful. They said nothing was done to improve the town. That

of the 10 per cent. cess paid as they believed in part for that purpose, nothing had yet been spent in that direction.

As to the outskirts of the town, in the lower land which borders the hillock site, they allowed that it was always filthy, and was not cared for in any way, especially owing to the fact, that since the rajbuhas were made, the land in question was flooded in every rains. On the eastern side of the town is an excavation called the Pokhur, which has been in existence for many years. To it all the surplus rainfall used to drain, and when it overflowed the water ran away immediately to the Kalee Nuddee, the wide khadir of which neighbours the town on the east side. The high raised and very large rajbuha now runs between the Pokhur and the Nuddee. A bridge has been provided for the townspeople to pass over the rajbuha, but there is no waterway beneath it anywhere. Last year, when the Pokhur rose, the collection of water on the east side of the town became so great, that a man in attempting to go out lost his cart there, and his bullocks were drowned.

I examined the place carefully, and I must say I never saw any town so deliberately cut off from its natural drainage channel as Jellalee is cut off from the Kalee khadir by the rajbuha.

400. In the northern part of the town is a quarter of sweepers, who keep about 200 pigs,—a most unusual thing in a Mahomedan town. Enquiring on this point, I understood that the respectable inhabitants loathe the presence of the pigs, which roam at large and do mischief, besides increasing the general filthiness. But they thought, under the existing Government, it would be useless to complain of the pigs.

401. It is not necessary that I should point out the especial requirements of Jellalee. The report speaks for itself.

More than anything, however, I may say, the town requires to be brought into communication with the outer world.

The new highway from Khasgunj to Allygurh, being a branch of the Grand Trunk Road, passes about a mile south of the town. From it the town is reached now either by following a track in the Kalee khadir, or by a broken track at the foot of the rajbuha. If a good roadway could be made from the town to the Turaf Allee Nugla, on the new road, it would provide the means of communication so much required.

402. The people of Jellalee appeared to be in good health. Children were seen to be numerous ; many fine boys were seen. Enlargement of the spleen is an uncommon condition, although fever disease often prevails. The water in the wells is considered very good ; it has risen 12 feet since the canal was made, but its quality has not been changed. In the town wells the water now stands at 30 feet from the surface.

TUPPUL.

403. Tuppul, inspected on the 6th of March, is a town of very little importance, situated in the north-west corner of the Allygurh district. It is joined to Allygurh by a wide but unmade way, which passes through Khyr and is the commencement of the important roadway which slants through the Allygurh District, from the north-west to the south-east.

The town is situated on the old Jumna bank, but the river is more than four miles distant westward, level land of the green khadir intervening.

The town site is well raised, but between the actual site and the commencement of the khadir there is the very high raised and extensive site of a fort, on the very brink of the bhangur. Here there was a fort built in the Jat Raja Dhour's time, 800 years ago, but of it only the much raised site with mud hillocks on it remains. From the highest point a wide view of the Jumna khadir may be obtained, with villages nestling along the old bank.

This old site witnesses to a history clean gone out of mind at Tuppul; but on the north-east outskirt of the town there is a modern fort standing in the level land.

It belonged to Begum Simroo, for both the Tuppul and Jewur pergunnahs formed part of her estate, and then her tehseeldar lived at Tuppul, and the town prospered a little. Of those days the people seemed to be well informed. The modern tehseelee has been established at Khyr, more centrically situated, though of much less importance than Tuppul.

404. The present aspect of Tuppul is that of a town fallen on evil days: it contains no made road in any part, and its houses are in many instances ruinous. Indeed, it contains only one good house, the residence of a Sonar, and perhaps 50 houses in tolerably good condition. All the remaining houses are more or less ruinous.

The principal inhabitants are Rajpoot Mahomedanes, the greatest number of whom are cultivators, and in reality the town is but an extensive village in regard to its appearance, and the occupation of its people. A rather important community of Brahmins, inhabiting about 196 houses, live here, however.

The town is entered from the north-east by a low sandy way, which, as it rises with the rising site, divides into two branches, circling round to rejoin in the midst of the town. Where they come together again is the bazaar, but all the shops are poor-looking, the business part of the town seemed to be very quiet, and I should think Tuppul has come to its lowest ebb of misfortune—with nothing of trade, and very little life of business in it.

All the southern part of the town is remarkably village-like, with deep sunk ways, the houses high-raised on each side.

405. The only public institutions are the school and the police office in the Begum's fort. The school is a square, detached, mud-built house, of one room. Two beams of its roof are broken, and, but for propping with poles, the roof would fall. Fifty-seven boys, half of whom were Mahomedans, were seen in the school-room, which has no ventilation above. From the state of the room it is advisable to crowd the boys to one end of the room, and the air there was unpleasantly close. But the boys are learning well, and the school is the good feature of the town.

The police office is a brick-built house in the old style, standing within the fort walls which are of mud, high raised, but fast going to ruin. No mortuary register is kept, and no monthly forms of mortuary return have been supplied. The deaths are registered on separate pieces of paper, one for each month, copies of which are sent to the head office.

406. There is no town authority of any kind I think; certainly no active authority. The sub-inspector of police appeared to be the chief person. An income of Rs. 138 per mensem results from a house-tax, of which Rs. 81 are expended in wages. Eleven public sweepers are employed, three of whom give their attention to the public latrines. Of these, the one I saw consisted of a good-sized, well-kept enclosure, in good repair. It seemed to be well frequented; yet most of the people retire to waste places well outside the town, in preference to frequenting the latrines.

The town itself was found fairly clean. The sweepings, being manure, are gathered into pits about the margin of the abadee. Nothing very objectionable, with reference to neglected conservancy, could be seen; certainly no part of the town is frequented as a public latrine place.

407. The well-water is extremely good; it stands at 35 feet from the surface.

There is no canal irrigation anywhere near Tuppul. Fever, however, is a common complaint in the autumn time of year. The local statement was that all suffered from it in some degree, although it was not usually fatal. Several persons having the spleen enlarged were examined. In some cases the enlargement was very considerable. The population of the town was 5,747 in 1865, and 6,031 in 1872.

MOORSAN.

408. Moorsan, inspected on the 26th of March, is also a town of very little importance. It is situated in the south-west corner of the Allygurh District, and is the place of

residence of the Moorsan Rajah. The high road from Muttra to Khasgunj and Soron passes the town on the south side at a little distance. But the town is not in communication with it by any made way. Principally, the space between the town and the highway is taken up by an extensive excavation, both east and west of which, however, low unmade ways pass out of the town to reach the highway.

The former is the continuation of the Allygurh road, which coming down by way of Eglas, passes through the eastern part of the town. The latter leads direct to the great fort of the rajah, which is divided from the town by the highway.

409. Entering the town by the fort road, this will be found to become the principal way. Turning eastward it is first wide, being the market-place, and then divides into two branches, which run side by side to end in the Eglas Road; they are both bazaar-ways—one a little important, the shops'-stone pointed below, the roadway well-shaped and brick-paved at the sides. It is called the gunj, and excepting it, all the ways of the town are unmade, their surface low, often broken. The Eglas road is very low, the shops on it few and poor.

410. Moorsan is a town of Hindoos, most of whom are cultivators, but there are five or six houses of Bhaoreas, who are merchants in country produce. In all there are built 30 or 40 brick-built houses in the town. The remainder are mud-built and thatched, and many houses are ruinous. On the southern side of the great excavation, and near to the highway, is a rather extensive quarter of sweepers and Chumars. The sweepers keep pigs, but not in great numbers.

411. The resident rajah is an honorary magistrate, but I could not make out that he interested himself in the improvement of the town or its management.

A house-tax, yielding Rs. 125 per mensem, is levied. Ten public sweepers are employed, and the town was found to be fairly clean everywhere. Two public latrine enclosures are in existence, both in the north-western outskirt. One is set apart for men, one for women, and they are much frequented. Their enclosure walls were seen to be ruinous.

412. In the town are two schools—one private, with 55 pupils, the other a government school, with 62 pupils. They are both inside the town, both mud-built structures, fronted by courtyards,—the private school-house well kept and leeped; The government school-house poorly kept, its roof likely to fall, its courtyard neglected.

The police office is a thatched mud-built hut, also inside the town. No mortuary register is kept. The registration is effected on separate sheets of paper; the supply of monthly forms of return is insufficient.

On the high-road, outside the town, there is a new police office—masonry built, and furnished with iron-grated lock-ups. When it was completed, the arched roof opened out with a wide crack, the foundation having sunk at one part, so it was abandoned. Of course it is a sad thing to see a public building in that state, but it is a low structure, and I think it can hardly fall down. The numerous pilgrims and Jhosees who pass that way evidently think so too; for they have taken possession of it as a dhurmsala, heaped the floor high with ashes—the result of much cooking—and begrimed the walls with smoke and other markings. Quite a company of people had settled themselves to rest there after the morning's travel, and I was glad to see them so well lodged. But I think the police authorities very much require a good thannah, and better lodged; perhaps the mohurrir would be able to give more attention to mortuary registration.

413. The excavation between the town and the highway is a generally filthy place. Much of impurity is thrown there. The business of brick-making still proceeds, and it is altogether a ragged neglected part, which much requires improvement. The town site is pretty level; still I think it might be very perfectly drained to the excavation. I need scarcely say that until the surface of the public thoroughfare is

raised everywhere in the town this cannot be effected. As they now exist, the ways generally are drainage channels, and, as such, must be in a bad state in the rains.

The water in the wells is good everywhere: it stands at 30 feet from the surface, and was much praised by the inhabitants. There is no canal-irrigation anywhere within some miles of the town.

The people are strong-looking. Enlargement of the spleen seemed to be unknown, and fever is not considered a very common complaint. The rajah employs two hakeems,—one at Rs. 60 and one at Rs. 30—to attend sick persons in the town, and I think the people much value his charitable endeavour in this direction. There is no dispensary in the town.

414. The fort is a very considerable centre of population. The rajah's fine house stands in the centre of it, palace-like. The old Moorsan Rajahs lived in it; but the present rajah prefers to reside in a country-house at some distance from the fort. And I think he is right. About the palace crowd many mud-built houses, for 1,700 people live in the fort, principally servants of the rajah, so that almost all the enclosure is covered with houses, like a mud-built town. Outside all are very high mud walls much broken into fissures, and generally ruinous. Once masonry platforms carrying guns existed in the corner bastions, but the platforms were in part blown up after the fort was captured in Lord Lake's time, and now they lie slanting mournfully in different directions. Evidently the present rajah takes no pride in his fort. The people who live inside make the walls their latrine place, so that every level place or convenient fissure inside and outside and on the top, was abominably filthy. Improvement is much required here.

415. Something of a hamlet has grown up on the high road, and the serai is there, a poor place, but clean, and many travellers come to it. Facing it is the purao—a large and much frequented halting place for bullock carts. The surface of both these places is low and quite undrained. Indeed, a drainage way is much required under the high-road for the rainfall drainage of the town-site generally. Then the water of flooding rain could find its way to the fort ditch, as it used to in former times, the ditch itself draining if necessary to the Khurwah Nuddee, little more than a mile distant from the town.

CHAPTER V.

SANITARY IMPROVEMENTS DURING THE PAST YEAR.

416. During the past year much has been done to improve and perfect our knowledge of disease as it affects the people of this country. A very considerable attention has been given to the matter of mortuary registration, so as to remedy, I think, in good measure anything like absolute neglect of registration in any circle. And to this end I think the orders of Government contained in the 7th paragraph of the remarks and orders on my report of 1871 have been most conducive.

Certainly in some of the districts quoted last year as "worst" in respect to this matter, that appellation will not now apply. Rather I may say, that the "worst" of these days are becoming as generally careful in this matter as the "best" of some years past.

Registers with printed headings have been lately supplied to all circles. I think they will prove a great help to the uniformity and correctness of registration. Certainly they will add an element of respectability and reality to the business of registration—a very great matter in this country. So long as the register was a book of varying form, or indeed sometimes a collection of detached papers, it was unreasonable to expect from the circle registrars a very earnest attention to the duty of registration.

417. During the past year an endeavour has been made to accomplish a registration of the births happening in selected populations of the province. For this purpose the municipal towns have been selected. They number in all 78, with a total population of 2,186,899. As the municipalities very generally require a birth registration within their limits under a bye-law to that effect, it was hoped that the municipal authorities would effect the registration, the work of compilation being undertaken in my office. But a very little experience sufficed to show that the bye-law in question was enforced in very few municipalities, the commencing series of birth returns being inaccurate to a lamentable degree. So much so, that it was not until August last that the returns were found to merit compilation at all.

About that time the help of the Police authorities was enlisted in this matter. The police clerk was required to register the births as reported by the chowkeedars, and to furnish a monthly return for the Civil Surgeon, who, as district birth registrar, collected the returns of all municipalities of the district for incorporation in one return, to be submitted to the Sanitary Commissioner.

This is the system now in force, but I am not quite sure that the registration is effected by the police in all municipalities. However, since August last, the returns have been received with a fair amount of punctuality, and have, in a lesser degree than before, witnessed to such neglect of registration as can only be characterized as absurd. But, even up to the present time, the registration of births is so imperfect that in April last the ratio of births to 1,000 of the population in the different municipalities ranged between 6·43 and 0·22. The average monthly ratio for all municipalities for the past nine months has been 1·88 births to 1,000 population, showing an annual ratio of 22·60. Now, the ratio of deaths in the town circles in 1872 (see Appendix K.) was 30·72 to 1,000 living. I need scarcely add that in a country, the population of which is undoubtedly increasing, it cannot be possible for the deaths to outnumber the births even by one, yet here we have an outnumbering which, continued for a few years, would depopulate the towns entirely.

In England, for the 33 years from 1838-70, the mean of births and deaths to 1,000 living was 33·80 births and 22·40 deaths. In the North-Western Provinces our commencing endeavours at registration have resulted in showing almost the opposite of this wholesome state of things. The cause of course is that very many births in the municipalities are not yet registered. I know everything must have a beginning, and I hope birth registration in municipalities will slowly work its way to an approach to correctness.

In the meanwhile, although I willingly prepare the monthly birth statements for submission to Government and for distribution to municipalities, I cannot venture to publish them in the Provincial *Gazette*. So much of distinction must remain for a time when the returns may be fit for public inspection.

418. The work of actual sanitary improvement of centres of population progressed steadily in 1872. In every town of any importance in the country this matter receives a considerable amount of attention. In some districts I have lately noticed that the smaller towns are being improved too. The first, and absolutely necessary step, is the creation of a municipal income; then the requirements of the 34th Section of Act V. of 1856 can be accomplished with advantage to all concerned. And many of the subordinate magistrates have been lately employed in effecting a change for the better in towns hitherto quite neglected.

But in every district, towns, or large villages like towns in regard to population, may be found in pretty considerable numbers, in which as yet nothing has been done to improve the site. The people of these places generally are quite unable to bear more taxation. Nine-tenths of them are cultivators who already pay something for sanitary improvements, without as yet any return therefrom in regard to the improvement of the place in which they live, and about which, naturally, they are most interested. Doubtless the large sum raised by way of cess is expended in greatest share for the general improvement of the country and its better administration. But comparatively few of the contributors understand this, or have the matter brought home to them by visible improvement in the very places of their homes.

I hope it may not be found impossible to effect something in this direction, for the people interested expect it. They appear to think that at the time the last settlement was completed, something in the nature of a promise of improvement was given to them. And I have often heard statements to that effect in the more remote centres of population, when any very unusual cause of sickness or impediment to comfort or convenience was under discussion.

419. In the cities, as usual, the important works of levelling, planting, road-making, and drainage, have received a very earnest attention. Year by year unwholesome places are reclaimed, ventilation is improved, cleanliness made more real. In Allahabad, I think, the question of an improved water-supply is receiving attention. This is a matter of the first importance, for the population of the Allahabad site increases steadily, whilst, at the same time, disease frequently prevails. And I think I am right in stating that Allahabad is slowly gaining an unenviable notoriety in regard to unhealthiness as a place of residence, both amongst Europeans and Natives. An improved water-supply might bring about a change, if this is so.

420. It happens that during the past two years I have at different times taken such opportunities as offered of analyzing the waters of the wells and the waters of the rivers of the Allahabad neighbourhood. The result has been, that whereas, in regard to hardness, well water has varied from 10 to 12 degrees, Ganges water has varied from 4 to 7 degrees. And in regard to total solids, well water has varied from 32 to 75 grains per gallon, and Ganges water from 15 to 17 grains per gallon.

These are the main facts, stated concisely. The variations in regard to the facts as concerns the well water is due no doubt in greatest measure to the nature of the subsoil through which the well is sunk. The variations in regard to Ganges water is due

to the time of year. For example, on the 24th of August, with the river in flood, and on the 11th of April, with the river very low, the results were as follows :—

Ganges Water.

Date.	Results per gallon.		Date.	Results per gallon.	
		Degrees.			Degrees.
24th Augt., 1872.	Removable hardness, ...	2·05	11th April, 1873.	Removable hardness, ...	4·40
	Permanent do., ...	1·45		Permanent do., ...	2·80
	Total hardness, ...	3·50		Total hardness, ...	7·20
		grs.			grs.
	Soluble salts, ...	5·88		Soluble salts, ...	7·42
	Insoluble salts, ...	9·24		Insoluble salts, ...	9·24
	Total salts, ...	15·12		Total salts, ...	16·66

No well-water in Allahabad will bear comparison with Ganges water in any property of a good drinking water. The river is quite close, the supply of water never failing. In regard to expenditure I should think there never was a city site which could be supplied at less cost. I do not suppose for a moment that it would be possible to grant a house-to-house supply, but a supply so distributed as to be within easy reach of all who desired to take it, would serve every reasonable purpose.

At first the people might say they would not use water flowing from pipes, but time would soon remedy that. The comparative goodness of the water would soon bring it into general use. For all purposes of drinking, cooking, washing, building, and irrigation, it is infinitely superior to well-water. Indeed, the better class of Hindoos of the Allahabad city know of its good qualities very well now, and many of them take water from the Ganges for their house supply.

421. The drainage scheme of the Saharunpore town has been actively prosecuted during the past year. I inspected the works in January last, and believe the result will be a very great improvement in the drainage of the Saharunpore site generally.

422. During the past year a very careful survey of the Kutha and Kursunnee Nuddees, two very inefficient drainage channels of the western land of the Saharunpore district, has been completed by Captain Harrison, R.E. These nuddees are very shallow, partaking much of the character of tortuous ways of communication between swampy places. The Kutha bounds to the west the eastern Jumna Canal irrigation, but it takes its rise from the Koomarhera swamp, which is in the midst of canal irrigated country. The Kursunnee runs through the irrigated country east of the same canal. The survey has shown that these nuddees are inefficient as drainage channels, principally from certain removable causes, and the irrigation department has undertaken the necessary improvements. I think good results may be expected, and trust the improvements will permanently remedy the existing state of excessive moisture in the country indicated.

Captain Harrison's admirable report on this subject requires mention here as a valuable addition to our knowledge of the sanitary state of the country. And I think the official statement of Colonel Brownlow, the Chief Engineer of Irrigation Works, to the effect that the irrigation Department is in duty bound to carry out the necessary improvements, is a most praiseworthy expression of opinion.

423. The drainage scheme of the Cawnpore city has made good progress during the past year. The important portion of the scheme is now completed. In December last I had an opportunity of seeing the main drainage channels in full operation. A continuous stream of canal water passes through them, carrying away

everything of impurity which they might contain. Perhaps I ought to repeat that the scheme does not contemplate the removal of sewage, but only the removal of surface drainage and excessive rainfall. Still, from the surface drains of so large a site, much filthy water of necessity finds its way into the main channels. The quick flow of pure canal water carries this away most effectually. The side drains of the streets are in course of construction, and are being carefully laid down so as to form a system, sloping gradually, to end in the main channels. The result will be, I believe, a state of surface cleanliness and dryness very beneficial to the public health at Cawnpore.

I trust it may not be impossible hereafter to furnish Cawnpore with an artificial water supply. This, besides benefitting the people in other ways, would permit of the creation of public bathing places, which should be stone built enclosures of good size, to which people might resort to wash themselves and their clothes, the water being obtainable from pipes above, and removable by openings below, in communication with the main drainage channels. I think, properly managed, these bathing places would become popular, and would certainly be a source of health. But they must not be divided into cells. A Native never strips himself to wash, and the arrangements within cannot be too public, because Native public opinion does not favour arrangements for privacy anywhere outside the homes.

ALLAHABAD: *Dated the 1st June*, 1873.

C. PLANCK,
Sanitary Commissioner, N.-W. Provinces.

APPENDIX A.

ANNUAL FORM No. I.

Deaths registered in the several Districts of the N.-W. Provinces during the year 1872.

1.	2.	3.	4.	5.	6.			7.	8.
Number.	District.	Population according to Census of 1872.	Area in statute acres.	Average Population per statute acre.	Number of deaths registered.			Ratio of deaths per 1,000 of the population.	Ratio of deaths per 1,000 of the population in 1871.
					Male.	Female.	Total.		
1	Kumaon, ...	430,300	3,840,000	0·11	5,070	3,874	8,944	20·78	17·07
2	Gurhwal, ...	309,947	3,200,000	0·09	3,239	2,617	5,856	18·89	21·76
3	Terai, ...	185,647	405,089	0·45	3,488	2,570	6,058	32·63	51·54
4	Bijnour, ...	714,415	1,204,659	0·59	12,439	10,135	22,574	31·59	34·36
5	Moradabad, ...	1,118,943	1,466,969	0·76	16,489	12,750	29,239	26·13	30·37
6	Bareilly, ...	1,506,547	2,043,072	0·73	22,596	17,539	40,135	26·64	23·95
7	Shahjehanpore, ...	945,705	1,059,775	0·89	24,191	19,912	44,103	46·63	29·67
8	Budaon, ...	934,454	1,262,489	0·74	10,270	8,162	18,432	19·72	17·50
9	Dehra Doon, ...	116,981	653,273	0·18	1,183	623	1,806	15·43	11·79
10	Saharunpore, ...	880,663	1,425,824	0·61	14,604	11,611	26,215	29·76	*34·49
11	Moozuffernuggur,... ...	704,000	1,054,067	0·66	9,597	7,260	16,857	23·94	32·78
12	Meerut, ...	1,271,454	1,511,661	0·84	24,222	20,984	45,206	35·55	29·07
13	Boolundshuhur, ...	936,733	1,221,369	0·76	15,690	14,468	30,158	32·19	26·24
14	Allygurh, ...	1,057,939	1,190,118	0·88	11,573	9,454	21,027	19·87	18·73
15	Etah, ...	700,688	898,635	0·78	8,698	6,807	15,505	22·12	23·06
16	Muttra, ...	892,542	1,032,019	0·86	6,938	5,544	12,482	13·98	16·25
17	Furruckabad, ...	919,091	1,084,397	0·85	9,631	7,142	16,773	18·24	15·16
18	Mynpoory, ...	753,971	1,066,528	0·70	8,052	5,871	13,923	18·45	24·65
19	Agra, ...	1,097,425	1,199,040	0·91	10,640	8,688	19,328	17·61	17·47
20	Etawah, ...	671,247	1,044,121	0·64	8,167	6,305	14,472	21·55	23·71
21	Cawnpore, ...	1,152,628	1,514,342	0·76	17,712	14,789	32,501	28·19	27·39
22	Futtehpore, ...	661,585	1,011,424	0·65	7,550	6,389	13,939	21·06	18·60
23	Jounpore, ...	1,022,555	993,382	1·03	13,919	10,745	24,664	24·11	11·69
24	Humeerpore, ...	527,540	1,464,640	0·36	7,484	5,289	12,773	24·21	21·52
25	Banda,...	696,443	1,939,289	0·35	6,810	4,908	11,718	16·82	13·34
26	Allahabad, ...	1,382,826	1,769,568	0·78	15,566	12,175	27,741	20·06	13·81
27	Goruckpore, ...	2,044,821	4,736,518	0·74	21,169	15,638	36,807	18·00	12·67
28	Bustee, ...	1,487,572			19,912	14,905	34,817	23·40	10·97
29	Azimgurh, ...	1,497,580	1,628,845	0·91	11,664	8,439	20,103	13·42	10·58
30	Ghazeepore, ...	1,454,000	1,422,176	1·02	11,792	8,471	20,263	13·93	11·23
31	Benares, ...	793,433	637,248	1·24	8,431	6,221	14,652	18·46	12·12
32	Mirzapore, ...	1,087,200	3,328,147	0·32	13,911	11,291	25,202	23·18	11·53
33	Jaloun, ...	400,781	989,715	0·40	4,250	2,966	7,216	18·00	21·84
34	Jhansie, ...	311,773	1,029,293	0·30	4,038	3,095	7,133	22·87	19·12
35	Lullutpore, ...	214,593	1,246,342	0·17	2,579	2,047	4,626	21·55	11·61
	Total, ...	30,884,022	51,574,234	0·59	393,564	309,684	703,248	22·77	19·55

APPENDIX

ANNUAL FORM

Deaths registered from ALL CAUSES in the several Districts

1. Number.	2. District.	3. Population according to Census of 1872.	4. January. Male.	Female.	Total.	February. Male.	Female.	Total.	Number.
1	Kumaon, ...	430,300	412	295	707	319	249	568	1
2	Gurhwal, ...	309,947	196	158	354	253	166	419	2
3	Terai, ...	185,647	319	236	555	249	173	422	3
4	Bijnour, ...	714,415	765	582	1,347	608	560	1,168	4
5	Moradabad, ...	1,118,943	978	763	1,741	742	497	1,239	5
6	Bareilly, ...	1,506,547	1,819	1,365	3,184	1,054	771	1,825	6
7	Shahjehanpore, ...	945,705	1,255	1,014	2,269	815	617	1,432	7
8	Budaon, ...	934,454	639	518	1,157	388	310	698	8
9	Dehra Doon, ...	116,981	94	34	128	57	30	87	9
10	Saharunpore,...	880,663	1,080	873	1,953	894	633	1,527	10
11	Moozuffurnuggur, ...	704,000	669	470	1,139	535	396	931	11
12	Meerut, ...	1,271,454	888	654	1,542	617	469	1,086	12
13	Boolundshuhur, ...	936,733	596	590	1,186	520	494	1,014	13
14	Allygurh, ...	1,057,939	549	431	980	434	291	725	14
15	Etah, ...	700,688	527	431	958	404	339	743	15
16	Muttra, ...	892,542	375	306	681	370	265	635	16
17	Furruckabad, ...	919,091	822	537	1,359	504	302	806	17
18	Mynpoory, ...	753,971	817	488	1,305	489	347	836	18
19	Agra, ...	1,097,425	729	546	1,275	580	413	993	19
20	Etawah, ...	671,247	636	449	1,085	611	407	1,018	20
21	Cawnpore, ...	1,152,628	1,263	1,084	2,347	994	768	1,762	21
22	Futtehpore, ...	661,585	643	571	1,214	598	470	1,068	22
23	Jounpore, ...	1,022,555	1,001	705	1,706	727	511	1,238	23
24	Humeerpore,...	527,540	551	348	899	461	286	747	24
25	Banda, ...	696,443	604	368	972	571	321	892	25
26	Allahabad, ...	1,382,826	1,153	872	2,025	1,035	718	1,753	26
27	Goruckpore, ...	2,044,821	1,706	1,099	2,805	913	597	1,510	27
28	Bustee, ...	1,487,572	1,083	798	1,881	810	480	1,290	28
29	Azimgurh, ...	1,497,580	924	643	1,567	527	403	930	29
30	Ghazeepore, ...	1,454,000	826	541	1,367	642	429	1,071	30
31	Benares, ...	793,433	520	362	882	412	262	674	31
32	Mirzapore, ...	1,087,200	896	658	1,554	779	560	1,339	32
33	Jaloun, ...	400,781	404	280	684	367	248	615	33
34	Jhansie, ...	311,773	336	247	583	328	208	536	34
35	Lullutpore, ...	214,593	170	112	282	164	119	283	35
	Total, ...	30,884,022	26,245	19,428	45,673	19,771	14,109	33,880	

B.

No. II.

North-Western Provinces during each month of the year 1872.

4 (*continued*).

Number.	March.			April.			May.			June.			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	229	176	405	321	247	568	564	428	992	951	705	1,656	1
2	186	150	336	206	168	374	308	250	558	483	356	839	2
3	234	155	389	233	164	397	236	159	395	221	131	352	3
4	794	653	1,447	1,191	908	2,099	1,729	1,305	3,034	1,140	1,000	2,140	4
5	551	394	945	848	623	1,471	1,098	746	1,844	1,112	819	1,931	5
6	824	610	1,434	1,122	807	1,929	1,203	840	2,043	1,173	845	2,018	6
7	862	629	1,491	1,236	990	2,226	1,466	1,186	2,652	1,306	1,011	2,317	7
8	426	320	746	543	435	978	604	459	1,063	712	572	1, 84	8
9	72	37	109	68	45	113	113	73	186	89	61	150	9
10	1,104	772	1,876	1,316	1,007	2,323	1,497	1,197	2,694	1,471	1,123	2,594	10
11	762	530	1,292	798	586	1,384	843	617	1,460	806	523	1,329	11
12	689	496	1,185	990	716	1,706	1,544	1,168	2,712	1,848	1,364	3,212	12
13	542	466	1,008	866	711	1,577	1,040	899	1,939	1,270	1,088	2,358	13
14	410	357	767	593	429	1,022	571	426	997	802	661	1,463	14
15	479	379	858	584	473	1,057	579	396	975	622	468	1,090	15
16	443	319	762	474	384	858	636	473	1,109	630	479	1,109	16
17	464	270	734	450	324	774	470	328	798	528	419	947	17
18	617	406	1,023	568	400	968	490	379	869	513	392	905	18
19	630	466	1,096	620	461	1,081	716	551	1,267	810	651	1,461	19
20	581	396	977	458	390	848	501	387	888	813	567	1,380	20
21	1,024	857	1,881	1,121	938	2,059	1,451	1,183	2,634	1,661	1,375	3,036	21
22	583	472	1 055	464	372	836	552	466	1,018	710	496	1,206	22
23	1,588	1,135	2,723	3,965	3,397	7,362	1,357	1,134	2,491	656	507	1,163	23
24	559	310	869	502	317	819	487	311	798	662	408	1,070	24
25	639	346	985	397	302	699	475	292	767	515	357	872	25
26	1,113	853	1,966	2,054	1,785	3,839	1,690	1,296	2,986	1,094	792	1,886	26
27	1,108	769	1,877	1,713	1,195	2,908	2,186	1,462	3,648	1,690	1,140	2,830	27
28	860	575	1,435	2,661	1,963	4,624	3,394	2,567	5,961	2,373	1,817	4,190	28
29	558	350	908	1,006	731	1,737	1,350	986	2,336	1,037	708	1,745	29
30	650	442	1,092	677	461	1,138	712	444	1,156	963	607	1,570	30
31	484	325	809	776	607	1,383	690	500	1,190	571	404	975	31
32	958	690	1,648	1,210	955	2,165	1,336	1,046	2,382	1,168	936	2,104	32
33	354	211	565	286	163	449	292	214	506	305	222	527	33
34	409	224	633	274	206	480	297	240	537	413	302	715	34
35	232	141	373	166	152	318	164	137	301	267	193	460	35
	22,018	15,681	37,699	30,757	23,812	54,569	32,641	24,545	57,186	31,385	23,499	54,884	

APPENDIX

ANNUAL FORM

Deaths registered from ALL CAUSES in the several Districts

1. Number.	2. Districts.	July. Male.	July. Female.	July. Total.	August. Male.	August. Female.	August. Total.	September. Male.	September. Female.	September. Total.	Number.
1	Kumaon, ...	573	513	1,086	398	341	739	337	233	570	1
2	Gurhwal, ...	430	381	811	348	344	692	295	198	423	2
3	Terai, ...	163	121	284	196	133	329	223	167	390	3
4	Bijnour, ...	727	688	1,415	714	630	1,344	1,122	839	1,961	4
5	Moradabad, ...	856	640	1,496	1,222	993	2,215	2,227	1,827	4,054	5
6	Bareilly, ...	1,064	872	1,936	1,324	1,066	2,390	2,563	1,949	4,512	6
7	Shahjehanpore, ...	1,184	1,086	2,270	2,500	2,136	4,636	3,606	3,020	6,626	7
8	Budaon, ...	589	535	1,124	935	728	1,663	1,528	1,208	2,736	8
9	Dehra Doon, ..	113	56	169	225	89	314	107	52	159	9
10	Saharunpore, ...	959	723	1,682	1,362	1,122	2,484	1,445	1,209	2,654	10
11	Moozuffernuggur, ...	533	398	931	708	500	1,208	969	764	1,733	11
12	Meerut, ...	1,173	966	2,139	2,311	2,281	4,592	5,324	4,876	10,200	12
13	Boolundshuhur, ...	1,123	1,026	2,149	1,686	1,571	3,257	2,741	2,594	5,335	13
14	Allygurh, ...	663	609	1,292	1,337	1,017	2,354	2,437	1,993	4,430	14
15	Etah, ...	563	391	954	924	659	1,583	1,191	938	2,129	15
16	Muttra, ...	589	482	1,071	719	553	1,272	940	775	1,715	16
17	Furruckabad, ...	720	528	1,248	1,567	1,276	2,843	1,357	1,103	2,460	17
18	Mynpoory, ...	453	337	790	617	509	1,126	958	681	1,639	18
19	Agra, ...	785	694	1,479	1,283	1,140	2,423	1,526	1,298	2,824	19
20	Etawah, ...	778	572	1,350	900	799	1,699	911	794	1,705	20
21	Cawnpore, ...	1,145	978	2,123	1,549	1,240	2,789	2,082	1,594	3,676	21
22	Futtehpore, ...	472	397	869	577	523	1,100	763	696	1,459	22
23	Jounpore, ...	590	374	964	708	514	1,222	798	596	1,394	23
24	Humeerpore, ...	614	453	1,067	849	644	1,493	880	723	1,603	24
25	Banda, ...	400	306	706	574	503	1,077	768	661	1,429	25
26	Allahabad, ...	737	573	1,310	1,242	872	2,114	1,250	1,010	2,260	26
27	Goruckpore, ...	998	766	1,764	1,242	979	2,221	1,627	1,187	2,814	27
28	Bustee, ...	872	690	1,562	1,025	823	1,848	1,206	902	2,108	28
29	Azimgurh, ...	706	569	1,275	1,023	671	1,694	1,068	783	1,851	29
30	Ghazeepore, ...	925	627	1,552	1,137	811	1,948	1,621	1,278	2,899	30
31	Behares, ...	587	406	993	938	697	1,635	988	844	1,832	31
32	Mirzapore, ...	1,219	955	2,174	1,523	1,341	2,864	1,244	1,160	2,404	32
33	Jaloun, ...	238	198	436	372	255	627	520	386	906	33
34	Jhansie, ...	272	203	475	347	308	655	404	337	741	34
35	Lullutpore, ...	279	251	530	295	264	559	236	239	475	35
	Total, ...	24,112	19,364	43,476	34,677	28,332	63,009	47,192	38,914	86,106	

B.

No. II.—*(concluded).*

of the North-Western Provinces during each month of the year 1872.

(concluded).										5.			
	October.			November.			December.			Total.			
Number.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	337	253	590	295	207	502	334	227	561	5,070	3,874	8,944	1
2	191	151	342	206	162	368	207	133	340	3,239	2,617	5,856	2
3	439	375	814	582	475	1,057	393	281	674	3,488	2,570	6,058	3
4	1,523	1,283	2,806	1,172	975	2,147	954	712	1,666	12,439	10,135	22,574	4
5	3,393	2,615	6,008	2,082	1,777	3,859	1,380	1,056	2,436	16,489	12,750	29,239	5
6	4,063	3,307	7,370	3,552	3,017	6,669	2,735	2,090	4,825	22,596	17,539	40,135	6
7	4,781	4,139	8,920	3,260	2,569	5,829	1,920	1,515	3,435	24,191	19,912	44,103	7
8	2,064	1,670	3,734	1,043	822	1,865	799	585	1,384	10,270	8,162	18,432	8
9	117	72	189	72	43	115	56	31	87	1,183	623	1,806	9
10	1,303	1,085	2,388	1,081	974	2,055	1,092	893	1,985	14,604	11,611	26,215	10
11	1,122	969	2,091	1,039	850	1,889	813	657	1,470	9,597	7,260	16,857	11
12	4,418	4,061	8,479	2,598	2,421	5,019	1,822	1,512	3,334	24,222	20,984	45,206	12
13	2,570	2,436	5,006	1,551	1,483	3,034	1,185	1,110	2,295	15,690	14,468	30,158	13
14	1,682	1,457	3,139	1,395	1,203	2,598	680	580	1,260	11,573	9,454	21,027	14
15	1,341	1,134	2,475	888	676	1,564	596	523	1,119	8,698	6,807	15,505	15
16	782	700	1,482	520	444	964	460	364	824	6,938	5,544	12,482	16
17	1,345	1,038	2,383	748	556	1,304	656	461	1,117	9,631	7,142	16,773	17
18	986	809	1,795	755	598	1,353	789	525	1,314	8,052	5,871	13,923	18
19	1,325	1,123	2,448	907	743	1,650	729	602	1,331	10,640	8,688	19,328	19
20	833	680	1,513	587	470	1,057	558	394	952	8,167	6,305	14,472	20
21	2,261	1,978	4,239	1,767	1,543	3,310	1,394	1,251	2,645	17,712	14,789	32,501	21
22	779	685	1,464	700	643	1,343	709	598	1,307	7,550	6,389	13,939	22
23	877	692	1,569	913	655	1,568	739	525	1,264	13,919	10,745	24,664	23
24	740	618	1,358	633	454	1,087	546	417	963	7,484	5,289	12,773	24
25	632	557	1,189	640	481	1,121	595	414	1,009	6,810	4,908	11,718	25
26	1,735	1,374	3,109	1,356	1,140	2,496	1,107	890	1,997	15,566	12,175	27,741	26
27	2,525	2,186	4,711	2,818	2,309	5,127	2,643	1,949	4,592	21,169	15,638	36,807	27
28	1,866	1,590	3,456	1,824	1,426	3,250	1,938	1,274	3,212	19,912	14,905	34,817	28
29	1,279	1,125	2,404	1,219	734	1,953	967	736	1,703	11,664	8,439	20,103	29
30	1,383	1,059	2,442	1,165	931	2,096	1,091	811	1,932	11,792	8,471	20,263	30
31	937	717	1,654	748	561	1,309	780	536	1,316	8,431	6,221	14,65?	31
32	1,403	1,217	2,620	1,192	986	2,178	983	787	1,770	13,911	11,291	25,202	32
33	429	316	745	341	250	591	342	223	565	4,250	2,966	7,216	33
34	354	310	670	316	247	563	288	257	545	4,038	3,095	7,133	34
35	259	197	456	204	139	343	143	103	246	2,579	2,047	4,626	35
	52,074	43,984	96,058	40,269	32,964	73,233	32,423	25,052	57,475	393,564	309,684	703,248	

APPENDIX

ANNUAL FORM

Deaths registered from DIFFERENT CAUSES in the several Districts

1. Number.	2. District.	3. Population according to Census of 1872.	4. Cholera.			5. Small-pox.			Number.
			Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	430,300	19	7	26	17	13	30	1
2	Gurhwal, ...	309,947	...	...	...	37	37	74	2
3	Terai, ...	185,647	223	146	369	...	1	1	3
4	Bijnour, ...	714,415	116	104	220	2,020	1,816	3,836	4
5	Moradabad, ...	1,118,943	596	535	1,131	685	601	1,286	5
6	Bareilly, ...	1,506,547	830	669	1,499	1,538	1,315	2,853	6
7	Shahjehanpore, ...	945,705	2,317	2,086	4,403	1,650	1,409	3,059	7
8	Budaon, ...	934,454	469	403	872	702	611	1,313	8
9	Dehra Doon, ...	116,981	184	66	250	32	19	51	9
10	Saharunpore,...	880,663	760	591	1,351	2,868	2,428	5,296	10
11	Moozuffurnuggur, ...	704,000	20	15	35	629	468	1,097	11
12	Meerut, ...	1,271,454	299	211	510	445	381	826	12
13	Boolundshuhur, ...	936,733	215	204	419	514	534	1,048	13
14	Allygurh, ...	1,057,939	445	354	799	297	296	593	14
15	Etah, ...	700,688	205	135	340	173	147	320	15
16	Muttra, ...	892,542	253	154	407	275	267	542	16
17	Furruckabad, ...	919,091	1,371	1,167	2,538	59	69	128	17
18	Mynpoory, ...	753,971	201	165	366	11	16	27	18
19	Agra, ...	1,097,425	251	201	452	179	181	360	19
20	Etawah, ...	671,247	854	596	1,450	19	29	48	20
21	Cawnpore, ...	1,152,628	948	661	1,609	91	99	190	21
22	Futtehpore, ...	661,585	308	216	524	83	83	166	22
23	Jounpore, ...	1,022,555	4,417	3,834	8,251	113	116	229	23
24	Humeerpore,...	527,540	46	31	77	200	173	373	24
25	Banda, ...	696,443	114	88	202	129	128	257	25
26	Allahabad, ...	1,382,826	2,015	1,600	3,615	136	120	256	26
27	Goruckpore, ...	2,044,821	1,785	1,219	3,004	660	479	1,139	27
28	Bustee, ...	1,487,572	5,348	4,189	9,537	1,820	1,482	3,302	28
29	Azimgurh, ...	1,497,580	1,484	1,108	2,592	120	157	277	29
30	Ghazeepore, ...	1,454,000	378	241	619	111	119	230	30
31	Benares, ...	793,433	829	583	1,412	50	52	102	31
32	Mirzapore, ...	1,087,200	889	729	1,618	176	183	359	32
33	Jaloun, ...	400,781	37	29	66	...	2	2	33
34	Jhansie, ...	311,773	...	...	...	74	66	140	34
35	Lullutpore, ...	214,593	...	2	2	135	128	263	35
	Total, ...	30,884,022	28,226	22,339	50,565	16,048	14,025	30,073	

C.

No. III.

of the North-Western Provinces during the year 1872.

Number.	6. Fevers.			7. Bowel Complaints.			8. Injuries.						9.
							Suicide.			Wounds.			
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	2,498	1,954	4,452	1,177	936	2,113	11	19	30	48	31	79	1
2	1,390	966	2,356	1,375	1,201	2,576	16	36	52	35	29	64	2
3	3,018	2,273	5,291	168	105	273	1	1	2	2	1	3	3
4	7,995	6,471	14,466	1,276	860	2,136	15	11	26	9	7	16	4
5	10,312	7,940	18,252	3,450	2,594	6,044	5	6	11	30	17	47	5
6	18,007	13,919	31,926	1,164	817	1,981	20	22	42	28	12	40	6
7	13,275	10,643	23,918	3,542	2,940	6,482	42	86	128	16	10	26	7
8	6,302	5,011	11,313	1,339	965	2,304	14	33	47	13	11	24	8
9	576	343	919	196	116	312	2	1	3	4	...	4	9
10	8,180	6,659	14,839	1,548	1,021	2,569	15	4	19	14	14	28	10
11	7,809	5,985	13,794	806	566	1,372	2	4	6	13	3	16	11
12	20,213	17,996	38,209	1,786	11,997	2,983	13	5	18	13	14	27	12
13	11,980	11,228	23,208	1,500	1,288	2,788	18	13	31	25	23	48	13
14	8,396	6,911	15,307	1,742	1,354	3,096	27	16	43	29	27	56	14
15	7,152	5,665	12,817	308	210	518	4	12	16	13	5	18	15
16	4,876	3,980	8,856	842	604	1,446	13	13	26	11	3	14	16
17	6,957	5,040	11,997	590	385	975	27	38	65	24	6	30	17
18	7,362	5,364	12,726	215	114	329	10	15	25	19	7	26	18
19	7,713	6,481	14,194	1,189	906	2,095	19	29	48	99	71	170	19
20	6,669	5,148	11,817	280	222	502	6	19	25	7	4	11	20
21	13,697	11,726	25,423	1,472	1,107	2,579	12	24	36	30	9	39	21
22	4,491	3,881	8,372	1,749	1,434	3,183	19	15	34	16	7	23	22
23	8,460	6,122	14,582	324	109	433	12	38	50	18	8	26	23
24	3,768	2,574	6,342	2,219	1,527	3,746	13	35	48	22	18	40	24
25	4,504	3,058	7,562	1,180	844	2,024	15	35	50	17	1	18	25
26	9,818	7,904	17,722	2,155	1,390	3,545	30	29	59	38	11	49	26
27	15,564	11,544	27,108	1,349	807	2,156	13	42	55	35	15	50	27
28	11,531	8,321	19,852	356	147	503	6	20	26	24	8	32	28
29	8,235	5,858	14,093	1,026	545	1,571	12	45	57	25	12	37	29
30	10,127	7,217	17,344	688	373	1,061	12	42	54	25	5	30	30
31	6,199	4,651	10,850	758	466	1,224	3	14	17	19	10	29	31
32	9,937	8,174	18,111	1,169	841	2,010	16	38	54	19	19	38	32
33	3,088	2,192	5,280	492	272	764	7	23	30	12	8	20	33
34	2,778	2,135	4,913	518	340	858	17	55	72	24	11	35	34
35	1,258	967	2,225	529	414	943	13	18	31	19	4	23	35
	274,135	216,301	490,436	40,477	29,017	69,494	480	856	1,336	795	441	1,236	

APPENDIX

ANNUAL FORM

Deaths registered from DIFFERENT CAUSES in the several Districts

1. Number.	2. District.	8. Injuries—(*concluded*). *Accident.* Male.	Female.	Total.	*Snake-bite or killed by wild beasts..* Male.	Female.	Total.	Total Injuries.	Number.
1	Kumaon, ...	60	34	94	39	27	66	269	1
2	Gurhwal, ...	59	69	128	25	18	43	287	2
3	Terai, ...	10	3	13	17	14	31	49	3
4	Bijnour, ...	66	53	119	83	130	213	374	4
5	Moradabad, ...	99	67	166	47	70	117	341	5
6	Bareilly, ...	82	68	150	120	166	286	518	6
7	Shahjehanpore, ...	181	121	302	81	122	203	659	7
8	Badaon, ...	94	62	156	63	103	166	393	8
9	Dehra Doon, ...	14	5	19	2	...	2	28	9
10	Saharunpore,...	48	23	71	21	13	34	152	10
11	Moozuffernuggur, ...	46	28	74	10	8	18	114	11
12	Meerut, ...	74	73	147	20	19	39	231	12
13	Boolundshuhur, ...	56	64	120	11	22	33	232	13
14	Allygurh, ...	64	72	136	47	33	80	315	14
15	Etah, ...	57	39	96	11	19	30	160	15
16	Muttra, ...	93	64	157	12	19	31	228	16
17	Furruckabad,...	82	39	121	23	32	55	271	17
18	Mynpoory, ...	83	60	143	23	32	55	249	18
19	Agra, ...	121	82	203	17	22	39	460	19
20	Etawah, ...	21	13	34	23	32	55	125	20
21	Cawnpore, ...	202	142	344	58	76	134	553	21
22	Futtehpore, ...	122	99	221	60	72	132	410	22
23	Jounpore, ...	178	200	378	64	80	144	598	23
24	Humeerpore, ...	68	55	123	46	48	94	305	24
25	Banda, ...	104	114	218	165	236	401	687	25
26	Allahabad, ...	251	229	480	106	143	249	837	26
27	Goruckpore, ...	308	271	579	194	225	419	1,103	27
28	Bustee, ...	246	272	518	104	123	227	803	28
29	Azimgurh, ...	219	315	534	57	65	122	750	29
30	Ghazeepore, ...	152	248	400	41	41	82	566	30
31	Benares, ...	75	69	144	42	75	117	307	31
32	Mirzapore, ...	167	138	305	177	207	384	781	32
33	Jaloun, ...	24	23	47	36	56	92	189	33
34	Jhansie, ...	41	36	77	31	35	66	250	34
35	Lullutpore, ...	44	47	91	22	26	48	193	35
	Total, ...	3,611	3,297	6,908	1,898	2,409	4,307	13,787	

C.

No. III.—*(concluded.)*

of the North-Western Provinces during the Year 1872.

Number.	9. All other Causes.			10. Total of Deaths from all Causes.			11. Ratio of Deaths per 1,000 of Population.							Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel-Complaints.	Injuries.	All other Causes.	From all Causes.	
1	1,201	853	2,054	5,070	3,874	8,944	·06	·07	10·34	4·91	·62	4·77	20·78	1
2	302	261	563	3,239	2,617	5,856	...	·24	7·60	8·31	·92	1·81	18·89	2
3	49	26	75	3,488	2,570	6,058	1·98	...	28·50	1·47	·26	·40	32·63	3
4	859	683	1,542	12,439	10,135	22,574	·30	5·36	20·24	2·99	·52	2·15	31·59	4
5	1,265	920	2,185	16,489	12,750	29,239	1·01	1·14	16·31	5·40	·30	1·95	26·13	5
6	807	551	1,358	22,596	17,539	40,135	·99	1·89	21·19	1·31	·34	·90	26·64	6
7	3,087	2,495	5,582	24,191	19,912	44,103	4·65	3·23	25·29	6·85	·69	5·90	46·63	7
8	1,274	963	2,237	10,270	8,162	18,432	·93	1·40	12·10	2·46	·42	2·39	19·72	8
9	173	73	246	1,183	623	1,806	2·13	·43	7·85	2·66	·24	2·10	15·43	9
10	1,150	858	2,008	14,604	11,611	26,215	1·53	6·01	16·84	2·91	·17	2·28	29·76	10
11	262	183	445	9,597	7,260	16,857	·05	1·55	19·59	1·94	·16	·63	23·94	11
12	1,359	1,088	2,447	24,222	20,984	45,206	·40	·65	30·04	2·34	·18	1·92	35·55	12
13	1,371	1,092	2,463	15,690	14,468	30,158	·44	1·12	24·77	2·97	·24	2·63	32·19	13
14	526	391	917	11,573	9,454	21,027	·75	·56	14·47	2·92	·29	·86	19·87	14
15	775	575	1,350	8,698	6,807	15,505	·48	·45	18·29	·73	·22	1·92	22·12	15
16	563	440	1,003	6,938	5,544	12,482	·45	·60	9·92	1·62	·25	1·12	13·98	16
17	498	366	864	9,631	7,142	16,773	2·76	·13	13·05	1·06	·29	·94	18·24	17
18	128	98	226	8,052	5,871	13,923	·48	·03	16·87	·43	·33	·29	18·45	18
19	1,052	715	1,767	10,640	8,688	19,328	·41	·32	12·93	1·90	·41	1·61	17·61	19
20	288	242	530	8,167	6,305	14,472	2·16	·07	17·60	·74	·18	·78	21·55	20
21	1,202	945	2,147	17,712	14,789	32,501	1·39	·16	22·05	2·23	·48	1·86	28·19	21
22	702	582	1,284	7,550	6,389	13,939	·79	·25	12·65	4·81	·62	1·94	21·06	22
23	333	238	571	13,919	10,745	24,664	8·06	·22	14·26	·42	·58	·55	24·11	23
24	1,102	828	1,930	7,484	5,289	12,773	·14	·70	12·02	7·10	·58	3·66	24·21	24
25	582	404	986	6,810	4,908	11,718	·29	·37	10·85	2·90	·98	1·41	16·82	25
26	1,017	749	1,766	15,566	12,175	27,741	2·61	·18	12·81	2·56	·60	1·28	20·06	26
27	1,261	1,036	2,297	21,169	15,638	36,807	1·46	·55	13·26	1·05	·54	1·12	18·00	27
28	477	343	820	19,912	14,905	34,817	6·41	2·22	13·34	·33	·53	·55	23·40	28
29	486	334	820	11,664	8,439	20,103	1·73	·18	9·41	1·04	·50	·54	13·42	29
30	258	185	443	11,792	8,471	20,263	·42	·16	11·92	·72	·38	·30	13·93	30
31	456	301	757	8,431	6,221	14,652	1·78	·12	13·67	1·54	·38	·95	18·46	31
32	1,361	962	2,323	13,911	11,291	25,202	1·49	·33	16·66	1·84	·71	2·13	23·18	32
33	554	361	915	4,250	2,966	7,216	·16	...	13·17	1·90	·47	2·28	18·00	33
34	555	417	972	4,038	3,095	7,133	...	·45	15·75	2·75	·80	3·10	22·87	34
35	559	441	1,000	2,579	2,047	4,626	...	1·22	10·37	4·39	·89	4·66	21·55	35
	27,894	20,999	48,893	393,564	309,684	703,248	1·63	·97	15·87	2·25	·44	1·58	22·77	

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered ACCORDING TO AGE in the several Districts of the North-Western Provinces during the Year 1872.

1.	2.	3.										4.
Number.	Districts.	Born Dead.	Not exceeding 1 year.	1 to 6.	6 to 12.	12 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Exceeding 60.	Total.
1	Kumaon, ...	313	1,808	1,571	521	454	721	728	650	893	1,285	8,944
2	Gurhwal, ...	205	1,343	1,121	372	286	442	393	417	493	784	5,856
3	Terai, ...	30	740	889	432	446	776	878	672	620	575	6,058
4	Bijnour, ...	196	5,119	6,302	1,434	947	1,575	1,648	1,446	1,812	2,095	22,574
5	Moradabad, ...	322	6,234	6,655	2,023	1,601	2,176	2,041	2,249	2,424	3,514	29,239
6	Bareilly, ...	434	6,394	8,130	2,753	2,325	3,356	3,483	3,723	4,377	5,160	40,135
7	Shahjehanpore, ...	788	9,571	10,468	2,561	2,061	3,095	3,026	3,319	4,083	5,131	44,103
8	Budaon, ...	130	4,096	3,940	1,009	944	1,377	1,304	1,422	1,708	2,502	18,432
9	Dehra Doon, ...	7	233	241	140	125	256	253	189	185	177	1,806
10	Saharunpore, ...	367	5,259	5,326	1,866	1,377	2,443	2,436	1,967	2,161	3,019	26,215
11	Moozuffernuggur,	183	3,283	2,836	1,013	924	1,705	1,830	1,662	1,587	1,834	16,857
12	Meerut, ...	232	7,329	9,353	2,910	2,422	4,106	3,980	3,995	4,609	6,270	45,206
13	Boolundshuhur, ...	573	8,376	8,819	1,489	1,117	1,871	1,488	1,584	2,059	2,782	30,158
14	Allygurh, ...	362	4,782	4,813	1,274	1,129	1,627	1,526	1,441	1,763	2,310	21,027
15	Etah, ...	173	3,774	2,845	813	814	1,145	1,031	1,268	1,736	1,906	15,505
16	Muttra, ...	145	1,848	2,568	739	714	1,029	1,058	1,180	1,477	1,724	12,482
17	Furruckabad, ...	75	1,715	2,404	936	990	1,783	1,843	2,144	2,410	2,473	16,773
18	Mynpoory, ...	71	1,697	1,396	580	906	1,606	1,534	2,152	2,625	1,356	13,923
19	Agra, ...	149	3,689	3,117	824	1,057	1,769	1,580	1,700	2,261	3,182	19,328
20	Etawah, ...	57	1,877	1,351	584	899	1,772	1,607	2,234	2,537	1,554	14,472
21	Cawnpore, ...	332	5,597	4,216	1,320	1,546	3,095	3,191	4,660	5,121	3,423	32,501
22	Futtehpore, ...	62	1,266	1,485	610	620	1,856	2,108	2,640	2,295	997	13,939
23	Jounpore, ...	75	1,348	4,290	2,447	1,731	3,543	3,244	3,459	2,401	2,126	24,664
24	Humeerpore, ...	182	2,873	1,649	418	548	1,244	1,322	1,545	1,838	1,154	12,773
25	Banda, ...	54	1,057	1,291	595	578	1,678	1,882	2,018	1,730	925	11,718
26	Allahabad, ...	116	2,647	4,507	1,646	1,211	3,095	3,599	4,006	3,981	2,933	27,741
27	Goruckpore, ...	134	2,709	5,555	3,334	3,122	4,472	4,612	4,395	4,239	4,235	36,807
28	Bustee, ...	113	2,289	5,884	3,776	3,902	5,132	3,796	3,418	2,803	3,704	34,817
29	Azimgurh, ...	108	1,491	2,893	1,724	1,312	2,357	2,246	2,304	2,416	3,252	20,103
30	Ghazeepore, ...	128	1,490	2,856	1,508	1,335	2,740	2,811	2,623	2,282	2,490	20,263
31	Benares, ...	82	1,831	2,249	1,112	934	1,705	1,638	1,825	1,655	1,621	14,652
32	Mirzapore, ...	151	3,463	4,363	1,664	1,222	2,604	2,790	2,912	3,067	2,966	25,202
33	Jaloun, ...	45	935	581	309	428	899	970	1,250	1,225	574	7,216
34	Jhansie, ...	100	1,568	741	274	357	877	860	1,033	852	441	7,133
35	Lullutpore, ...	141	1,407	619	230	286	450	445	398	371	279	4,626
	Total, ...	6,635	111,138	127,324	45,150	40,700	70,377	69,175	73,900	78,096	80,753	703,248

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered ACCORDING TO CLASSES in the several Districts of the North-Western Provinces during the Year 1872.

1.	2.	3.	4.					5.
			Number of Deaths Registered.					
Number.	Districts.	Population according to Census of 1872.	Christians.	Mahomedans.	Hindoos.	Other Classes.	Total.	Ratio of deaths per 1,000 of the Population.
1	Kumaon, ...	430,300	1	101	8,458	384	8,944	20·78
2	Gurhwal, ...	309,947	9	27	5,817	3	5,856	18·89
3	Terai, ...	185,647	...	2,417	3,125	516	6,058	32·63
4	Bijnour, ...	714,415	...	7,304	13,727	1,543	22,574	31·59
5	Moradabad, ...	1,118,943	10	9,826	14,828	4,575	29,239	26·13
6	Bareilly, ...	1,506,547	12	6,647	31,706	1,770	40,135	26·64
7	Shahjehanpore,... ...	945,705	14	4,710	39,378	1	44,103	46·63
8	Budaon, ...	934,454	1	2,706	13,972	1,753	18,432	19·72
9	Dehra Doon, ...	116,981	25	229	1,333	219	1,806	15·43
10	Saharunpore, ...	880,663	4	8,425	11,549	6,237	26,215	29·76
11	Moozuffernuggur, ...	704,000	1	4,718	10,628	1,510	16,857	23·94
12	Meerut, ...	1,271,454	61	10,911	24,941	9,293	45,206	35·55
13	Boolundshuhur, ...	936,733	1	6,235	16,973	6,949	30,158	32·19
14	Allygurh, ...	1,057,939	4	2,274	15,241	3,508	21,027	19·87
15	Etah,...	700,688	4	1,458	14,042	1	15,505	22·12
16	Muttra, ...	892,542	1	1,296	10,514	671	12,482	13·98
17	Furruckabad, ...	919,091	10	1,837	13,676	1,250	16,773	18·24
18	Mynpoory, ...	753,971	2	753	11,598	1,570	13,923	18·45
19	Agra, ...	1,097,425	34	2,486	14,867	1,941	19,328	17·61
20	Etawah, ...	671,247	4	911	13,555	2	14,472	21·55
21	Cawnpore, ...	1,152,628	5	2,103	29,413	980	32,501	28·19
22	Futtehpore, ...	661,585	...	1,193	12,688	58	13,939	21·06
23	Jounpore, ...	1,022,555	1	1,490	22,091	1,082	24,664	24·11
24	Humeerpore, ...	527,540	1	652	11,963	152	12,773	24·21
25	Banda, ...	696,443	2	651	11,057	8	11,718	16·82
26	Allahabad, ...	1,382,826	55	3,058	23,582	1,046	27,741	20·06
27	Goruckpore, ...	2,044,821	6	3,331	33,046	424	36,807	18·00
28	Bustee, ...	1,487,572	4	5,398	28,644	771	34,817	23·40
29	Azimgurh, ...	1,497,580	2	2,482	15,667	1,952	20,103	13·42
30	Ghazeepore, ...	1,454,000	3	1,363	18,494	403	20,263	13·93
31	Benares, ...	793,433	6	1,000	13,510	136	14,652	18·46
32	Mirzapore, ...	1,087,200	11	1,589	23,424	178	25,202	23·18
33	Jaloun, ...	400,781	...	385	6,667	164	7,216	18·00
34	Jhansie, ...	311,773	2	270	6,835	26	7,133	22·87
35	Lullutpore, ...	214,593	3	109	3,418	1,096	4,626	21·55
	Total, ...	30,884,022	299	100,345	550,432	52,172	703,248	22·77

APPEN

ANNUAL

Deaths registered from Cholera in the Districts of the

1.	2,	3.							
Number.	Districts.	Population according to Census of 1872.	*January.*			*February.*			Number.
			Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	430,300	...	...	...	1	1	2	1
2	Gurhwal, ...	309,947	...	...	...	...	...	...	2
3	Terai, ...	185,647	...	...	...	...	...	...	3
4	Bijnour, ...	714,415	2	2	4	1	...	1	4
5	Moradabad, ...	1,118,943	3	3	6	4	2	6	5
6	Bareilly, ...	1,506,547	10	4	14	2	2	4	6
7	Shahjehanpore, ...	945,705	3	...	3	3	...	3	7
8	Budaon, ...	934,454	1	1	2	2	1	3	8
9	Dehra Doon, ...	116,981	...	...	...	1	...	1	9
10	Saharunpore, ...	880,663	4	14	18	4	...	4	10
11	Moozuffernuggur, ...	704,000	1	...	1	...	2	2	11
12	Meerut, ...	1,271,454	1	...	1	2	2	4	12
13	Boolundshuhur, ...	936,733	1	...	1	1	1	2	13
14	Allygurh, ...	1,057,939	1	...	1	...	...	...	14
15	Etah, ...	700,698	...	...	...	...	...	...	15
16	Muttra, ...	892,542	1	...	1	...	1	1	16
17	Furruckabad, ...	919,091	...	2	2	...	...	...	17
18	Mynpoory,...	753,971	...	...	...	...	...	...	18
19	Agra, ...	1,097,425	...	1	1	3	...	3	19
20	Etawah, ...	671,247	...	1	1	...	1	1	20
21	Cawnpore, ...	1,152,628	...	...	...	...	2	2	21
22	Futtehpore, ...	661,585	1	1	2	...	...	...	22
23	Jounpore, ...	1,022,555	5	6	11	6	8	14	23
24	Humeerpore, ...	527,540	...	...	...	...	...	...	24
25	Banda, ...	696,443	...	...	...	1	1	2	25
26	Allahabad,...	1,382,826	...	...	...	12	5	17	26
27	Goruckpore, ...	2,044,821	...	...	...	...	...	...	27
28	Bustee, ...	1,487,572	3	...	3	...	...	...	28
29	Azimgurh, ...	1,497,580	4	5	9	8	11	19	29
30	Ghazeepore, ...	1,454,000	10	5	15	6	5	11	30
31	Benares, ...	793,433	11	14	25	14	7	21	31
32	Mirzapore,...	1,087,200	2	3	5	1	3	4	32
33	Jaloun, ...	400,781	...	...	...	...	...	...	33
34	Jhansie, ...	311,773	...	...	...	...	...	...	34
35	Lullutpore, ...	214,593	...	...	...	...	...	...	35
	Total, ...	30,884,022	64	62	126	72	55	127	

DIX F.

FORM No. VI.

North-Western Provinces during each Month of the Year 1872.

4.

Number.	March.			April.			May.			June.			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	4	...	4	...	...	...	...	...	...	...	...	...	1
2	...	...	...	...	...	...	...	...	...	...	...	...	2
3	...	...	...	...	...	...	...	...	...	...	...	...	3
4	4	3	7	5	4	9	6	13	19	13	13	26	4
5	4	3	7	10	11	21	14	7	21	9	2	11	5
6	...	2	2	7	4	11	4	3	7	5	4	9	6
7	2	3	5	7	1	8	2	7	9	5	7	12	7
8	8	5	13	6	11	17	7	1	8	6	8	14	8
9	...	...	...	...	...	...	...	...	...	...	1	1	9
10	8	6	14	8	10	18	51	33	84	34	31	65	10
11	...	...	...	1	1	2	3	2	5	5	3	8	11
12	4	2	6	1	1	2	17	9	26	59	29	88	12
13	2	3	5	4	6	10	6	...	6	7	13	20	13
14	3	...	3	2	1	3	4	1	5	20	18	38	14
15	...	...	...	3	1	4	6	1	7	7	5	12	15
16	3	...	3	11	12	23	31	25	56	38	9	47	16
17	1	3	4	1	...	1	24	7	31	63	48	111	17
18	...	...	...	2	...	2	...	...	...	7	4	11	18
19	...	...	...	6	7	13	16	17	33	50	30	80	19
20	...	...	...	...	1	1	9	4	13	265	151	416	20
21	...	...	...	4	2	6	247	166	413	334	207	541	21
22	3	2	5	3	3	6	71	48	119	94	57	151	22
23	651	496	1,147	3,054	2,734	5,788	591	522	1,113	83	49	132	23
24	...	...	...	...	...	...	5	4	9	22	14	36	24
25	...	1	1	6	5	11	1	1	2	20	7	27	25
26	129	110	239	1,020	874	1,894	592	442	1,034	178	121	299	26
27	36	24	60	304	224	528	768	529	1,297	432	266	698	27
28	50	42	92	1,491	1,179	2,670	2,257	1,730	3,987	1,363	1,095	2,458	28
29	18	15	33	344	274	618	582	416	998	269	203	472	29
30	16	10	26	18	8	26	65	29	94	94	75	169	30
31	51	33	84	209	152	361	210	171	381	120	67	187	31
32	41	30	71	214	158	372	259	215	474	155	118	273	32
33	...	...	...	...	...	...	...	...	...	9	7	16	33
34	...	...	...	...	...	...	...	...	...	...	...	...	34
35	...	...	...	...	...	...	...	2	2	...	...	...	35
	1,038	793	1,831	6,741	5,648	12,425	5,848	440	10,253	3,766	2,662	6,428	

APPEN

ANNUAL

Deaths registered from Cholera in the Districts of the North-

1.	2.	3.									
Number.	Districts.	*July.*			*August.*			*September.*			Number.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	...	...	...	...	...	...	...	...	...	1
2	Gurhwal, ...	...	...	...	...	...	...	...	...	...	2
3	Terai, ...	...	...	...	...	...	...	16	9	25	3
4	Bijnour, ...	2	5	7	4	7	11	20	11	31	4
5	Moradabad, ...	6	6	12	33	26	59	194	209	403	5
6	Bareilly, ...	10	20	30	41	34	75	194	136	330	6
7	Shahjehanpore, ...	34	32	66	673	645	1,318	662	552	1,214	7
8	Budaon, ...	4	5	9	6	8	14	111	98	209	8
9	Dehra Doon, ...	42	12	54	127	48	175	10	1	11	9
10	Saharunpore, ...	15	3	18	380	314	694	212	154	366	10
11	Moozuffernuggur, ...	...	1	1	3	2	5	7	2	9	11
12	Meerut, ...	10	3	13	60	67	127	130	92	222	12
13	Boolundshuhur, ...	4	8	12	105	80	185	79	87	166	13
14	Allygurh, ...	16	15	31	74	58	132	281	216	497	14
15	Etah, ...	9	8	17	118	74	192	48	39	87	15
16	Muttra, ...	33	23	56	58	42	100	60	31	91	16
17	Furruckabad, ...	185	144	329	690	631	1,321	296	244	540	17
18	Mynpoory, ...	44	39	83	68	65	133	58	43	101	18
19	Agra, ...	69	75	144	70	56	126	34	14	48	19
20	Etawah, ...	296	193	489	223	196	419	58	39	97	20
21	Cawnpore, ...	151	119	270	83	48	131	79	83	162	21
22	Futtehpore, ...	37	28	65	30	27	57	41	32	73	22
23	Jounpore, ...	14	7	21	9	6	15	4	5	9	23
24	Humeerpore, ...	5	4	9	14	7	21	...	1	1	21
25	Banda, ...	6	7	13	30	25	55	50	41	91	25
26	Allahabad, ...	27	12	39	32	14	46	12	14	26	26
27	Goruckpore, ...	31	16	47	24	15	39	34	32	66	27
28	Bustee, ...	70	83	153	5	5	10	1	...	1	28
29	Azimgurh, ...	62	63	125	122	62	184	23	16	39	29
30	Ghazeepore, ...	56	36	92	75	57	132	25	11	36	30
31	Benares, ...	54	34	88	50	36	86	46	29	75	31
32	Mirzapore, ...	104	101	205	97	75	172	14	18	32	32
33	Jaloun, ...	5	2	7	4	3	7	19	17	36	33
34	Jhansie, ...	...	...	...	...	...	...	...	...	...	34
35	Lullutpore, ...	...	...	...	...	...	...	...	...	...	35
	Total, ...	1,401	1,104	2,505	3,308	2,733	6,041	2,818	2,276	5,094	

DIX F.

FORM No. VI.—(*concluded*).

Western Provinces during each Month of the Year 1872.

										4.			5.
	October.			*November.*			*December.*			*Total.*			
Number.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	...	...	...	...	...	...	14	6	20	19	7	26	1
2	...	...	...	...	...	...	...	...	...	...	...	...	2
3	83	70	153	111	54	165	13	13	26	223	146	369	3
4	43	30	73	11	15	26	5	1	6	116	104	220	4
5	312	257	569	6	8	14	1	1	2	596	535	1,131	5
6	394	323	717	145	125	270	18	12	30	830	669	1,499	6
7	744	705	1,449	176	130	306	6	4	10	2,317	2,086	4,403	7
8	306	249	555	11	15	26	1	1	2	469	403	872	8
9	4	4	8	...	...	...	...	...	...	184	66	250	9
10	38	23	61	4	3	7	2	...	2	760	591	1,351	10
11	...	...	...	...	...	...	...	2	2	20	15	35	11
12	14	5	19	1	...	1	...	1	1	299	211	510	12
13	5	4	9	...	1	1	1	1	2	215	204	419	13
14	38	41	79	6	3	9	...	1	1	445	354	799	14
15	13	7	20	1	...	1	...	...	...	205	135	340	15
16	15	10	25	3	1	4	...	...	...	253	154	407	16
17	108	87	195	3	1	4	...	...	...	1,371	1,167	2,538	17
18	19	12	31	3	2	5	...	...	...	201	165	366	18
19	2	1	3	...	...	...	1	...	1	251	201	452	19
20	2	10	12	...	...	...	1	...	1	854	596	1,450	20
21	48	33	81	1	1	2	1	...	1	948	661	1,609	21
22	26	12	38	2	5	7	...	1	1	308	216	524	22
23	...	...	...	...	1	1	...	...	...	4,417	3,834	8,251	23
24	...	...	...	...	...	...	...	1	1	46	31	77	24
25	...	...	...	...	...	...	...	...	...	114	88	202	25
26	12	6	18	1	...	1	...	2	2	2,015	1,600	3,615	26
27	69	50	119	53	41	94	34	22	56	1,785	1,219	3,004	27
28	88	44	132	2	4	6	18	7	25	5,348	4,189	9,537	28
29	13	15	28	32	23	55	7	5	12	1,484	1,108	2,592	29
30	2	2	4	...	...	...	11	3	14	378	241	619	30
31	31	25	56	18	11	29	15	4	19	329	583	1,412	31
32	1	7	8	1	1	2	...	...	...	889	729	1,618	32
33	...	...	...	...	...	...	...	...	...	37	29	66	33
34	...	...	...	...	...	...	...	...	...	...	...	...	34
35	...	...	...	...	...	...	...	...	...	...	2	2	35
	2,430	2,032	4,462	591	445	1,036	149	88	237	28,226	22,339	50,565	

APPEN

ANNUAL

Deaths registered from SMALL-POX in the Districts of the

1.	2.	3.								
Number.	Districts.	Population according to Census of 1872.	*January.*			*February.*			Number.
			Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	430,300	...	...	...	3	3	6	1
2	Gurhwal, ...	309,947	2	...	2	...	...	...	2
3	Terai, ...	185,647	...	...	...	...	1	1	3
4	Bijnour, ...	714,415	88	62	150	71	82	153	4
5	Moradabad, ...	1,118,943	22	33	55	35	30	65	5
6	Bareilly, ...	1,506,547	88	78	166	54	45	99	6
7	Shahjehanpore, ...	945,705	89	73	162	49	53	102	7
8	Budaon, ...	934,454	34	20	54	24	14	38	8
9	Dehra Doon, ...	116,981	...	...	...	...	...	...	9
10	Saharunpore, ...	880,663	117	122	239	107	80	187	10
11	Moozuffernuggur, ...	704,000	24	30	54	28	20	48	11
12	Meerut, ...	1,271,454	11	9	20	2	5	7	12
13	Boolundshuhur, ...	936,733	9	9	18	14	18	32	13
14	Allygurh, ...	1,057,939	16	24	40	5	2	7	14
15	Etah, ...	700,688	...	2	2	2	3	5	15
16	Muttra, ...	892,542	9	2	11	22	23	45	16
17	Furruckabad, ...	919,091	2	...	2	...	1	1	17
18	Mynpoory, ...	753,971	...	1	1	2	2	4	18
19	Agra, ...	1,097,425	2	1	3	3	5	8	19
20	Etawah, ...	671,247	...	13	13	2	...	2	20
21	Cawnpore, ...	1,152,628	...	3	3	2	1	3	21
22	Futtehpore, ...	661,585	2	8	10	3	3	6	22
23	Jounpore, ...	1,022,555	7	...	7	4	1	5	23
24	Humeerpore, ...	527,540	1	1	2	6	7	13	24
25	Banda, ...	696,443	6	14	20	6	7	13	25
26	Allahabad, ...	1,382,826	7	1	8	8	7	15	26
27	Goruckpore, ...	2,044,821	12	10	22	10	7	17	27
28	Bustee, ...	1,487,572	23	14	37	13	15	28	28
29	Azimgurh, ...	1,497,580	1	13	14	...	...	...	29
30	Ghazeepore, ...	1,454,000	2	3	5	1	16	17	30
31	Benares, ...	793,433	2	4	6	6	3	9	31
32	Mirzapore, ...	1,087,200	11	13	24	9	9	18	32
33	Jaloun, ...	400,781	...	...	...	...	...	...	33
34	Jhansie, ...	311,773	2	3	5	4	8	12	34
35	Lullutpore, ...	214,593	2	1	3	1	...	1	35
	Total, ...	30,884,022	591	567	1,158	496	471	967	

DIX G.

FORM No. VII.

North-Western Provinces during each Month of the Year 1872.

3.

Number.	March.			April.			May.			June.			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	2	2	4	2	2	4	5	2	7	1	1	2	1
2	3	5	8	5	15	20	7	5	12	5	4	9	2
3	...	...	...	...	...	...	...	...	...	...	...	...	3
4	116	134	250	306	277	583	706	519	1,225	412	395	807	4
5	22	31	53	82	83	165	157	133	290	153	124	277	5
6	64	42	106	179	156	335	268	198	466	304	257	561	6
7	87	64	151	202	171	373	358	308	666	336	278	614	7
8	35	27	62	88	71	159	136	111	247	183	135	318	8
9	...	...	...	1	...	1	3	2	5	9	1	10	9
10	248	191	439	396	333	729	616	530	1,146	612	535	1,147	10
11	44	36	80	71	61	132	110	83	193	104	62	166	11
12	27	13	40	97	65	162	88	86	174	109	83	192	12
13	38	38	76	84	71	155	76	64	140	100	92	192	13
14	7	7	14	30	19	49	39	30	69	65	90	155	14
15	8	2	10	18	13	31	29	25	54	40	36	76	15
16	35	24	59	56	50	106	64	60	124	37	37	74	16
17	...	1	1	6	7	13	10	8	18	12	7	19	17
18	...	...	...	1	3	4	3	1	4	2	3	5	18
19	7	8	15	31	27	58	32	28	60	48	46	94	19
20	...	...	...	1	3	4	...	...	...	...	...	...	20
21	4	6	10	13	9	22	15	15	30	18	21	39	21
22	2	5	7	7	6	13	11	14	25	26	18	44	22
23	7	5	12	48	56	104	26	32	58	9	14	23	23
24	10	14	24	25	14	39	26	31	57	61	27	88	24
25	10	11	21	20	12	32	17	17	34	23	24	47	25
26	11	4	15	31	24	55	42	39	81	19	14	33	26
27	34	30	64	133	78	211	143	80	223	125	107	232	27
28	61	73	134	307	253	560	426	364	790	409	293	702	28
29	2	1	3	10	18	28	45	45	90	28	37	65	29
30	6	5	11	12	28	40	19	19	38	20	10	30	30
31	8	6	14	7	8	15	3	5	8	9	4	13	31
32	19	14	33	32	39	71	36	34	70	20	23	43	32
33	...	...	...	...	2	2	...	...	...	...	...	...	33
34	7	9	16	18	15	33	11	14	25	15	8	23	34
35	1	7	8	3	3	6	15	11	26	32	32	64	35
	925	815	1,740	2,322	1,999	4,314	3,542	2,913	6,455	3,346	2,818	6,164	

APPEN

ANNUAL

Deaths registered from SMALL-POX in the Districts of the

1.	2.										
Number	Districts.	*July.*			*August.*			*September.*			Number.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	1	2	3	...	1	1	3	...	3	1
2	Gurhwal, ...	11	5	16	2	1	3	...	...	...	2
3	Terai, ...	...	...	...	...	...	...	...	...	...	3
4	Bijnour, ...	197	211	408	71	62	133	13	34	47	4
5	Moradabad, ...	99	65	164	51	45	96	32	29	61	5
6	Bareilly, ...	253	222	475	117	117	234	56	76	132	6
7	Shahjehanpore, ...	233	237	470	138	103	241	50	41	91	7
8	Budaon, ...	87	95	182	44	60	104	25	25	50	8
9	Dehra Doon, ...	10	12	22	2	2	4	5	2	7	9
10	Saharunpore, ...	321	264	585	157	126	283	102	85	187	10
11	Moozuffernuggur, ...	53	33	86	44	31	75	31	25	56	11
12	Meerut, ...	64	48	112	25	25	50	3	14	17	12
13	Boolundshuhur, ...	49	68	117	28	46	74	9	7	16	13
14	Allygurh, ...	26	30	56	25	19	44	17	11	28	14
15	Etah, ...	13	8	21	19	17	36	9	9	18	15
16	Muttra, ...	25	22	47	8	11	19	2	9	11	16
17	Furruckabad, ...	13	12	25	8	15	23	2	3	5	17
18	Mynpoory, ...	3	2	5	...	...	...	...	1	1	18
19	Agra, ...	25	34	59	6	7	13	5	1	6	19
20	Etawah, ...	2	2	4	10	5	15	2	3	5	20
21	Cawnpore, ...	7	8	15	8	8	16	1	4	5	21
22	Futtehpore, ...	10	10	20	10	10	20	2	4	6	22
23	Jounpore, ...	8	6	14	3	1	4	...	1	1	23
24	Humeerpore, ...	37	43	80	26	19	45	2	5	7	24
25	Banda, ...	18	20	38	16	11	27	8	8	16	25
26	Allahabad, ...	4	12	16	8	7	15	2	4	6	26
27	Gorruckpore, ...	44	54	98	39	20	59	23	22	45	27
28	Bustee, ...	202	176	378	141	121	262	87	55	142	28
29	Azimgurh, ...	8	6	14	14	8	22	3	17	20	29
30	Ghazeepore, ...	24	13	37	8	7	15	4	4	8	30
31	Benares, ...	4	7	11	4	7	11	1	1	2	31
32	Mirzapore, ...	16	14	30	11	20	31	13	10	23	32
33	Jaloun, ...	...	...	...	...	...	...	...	...	...	33
34	Jhansie.	9	8	17	4	...	4	1	1	2	34
35	Lullutpore, ...	54	31	85	17	20	37	4	14	18	35
	Total, ...	1,930	1,780	3,710	1,064	952	2,016	517	525	1,042	

DIX G.

FORM No. VII.—(*concluded.*)

North-Western Provinces during each Month of the Year 1872.

3.										4.			5.
	October.			*November.*			*December.*			*Total.*			
Number.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	...	...	...	...	...	...	...	...	...	17	13	30	1
2	...	...	...	2	...	2	...	2	2	37	37	74	2
3	...	...	...	...	...	...	...	...	...	...	1	1	3
4	5	3	8	8	6	14	27	31	58	2,020	1,816	3,836	4
5	10	5	15	4	3	7	18	20	38	685	601	1,286	5
6	34	27	61	38	28	66	83	69	152	1,538	1,315	2,853	6
7	18	16	34	22	17	39	68	48	116	1,650	1,409	3,059	7
8	10	16	26	6	3	9	30	34	64	702	611	1,313	8
9	...	...	...	...	...	...	2	...	2	32	19	51	9
10	58	48	106	62	46	108	72	68	140	2,868	2,428	5,296	10
11	19	10	29	46	29	75	55	48	103	629	468	1,097	11
12	4	23	27	3	3	6	12	7	19	445	381	826	12
13	5	7	12	15	17	32	87	97	184	514	534	1,048	13
14	38	35	73	9	8	17	20	21	41	297	296	593	14
15	6	6	12	7	5	12	22	21	43	173	147	320	15
16	3	5	8	...	7	7	14	17	31	275	267	542	16
17	...	...	...	2	1	3	4	14	18	59	69	128	17
18	...	...	...	...	...	...	...	3	3	11	16	27	18
19	2	8	10	2	4	6	16	12	28	179	181	360	19
20	2	3	5	...	...	...	...	...	...	19	29	48	20
21	3	1	4	3	2	5	17	21	38	91	99	190	21
22	5	1	6	3	3	6	2	1	3	83	83	166	22
23	...	...	...	...	...	...	1	...	1	113	116	229	23
24	2	4	6	4	4	8	...	4	4	200	173	373	24
25	3	2	5	2	2	4	...	...	...	129	128	257	25
26	...	6	6	1	...	1	3	2	5	136	120	256	26
27	18	11	29	15	6	21	64	54	118	660	479	1,139	27
28	38	33	71	32	21	53	81	64	145	1,820	1,482	3,302	28
29	1	3	4	4	2	6	4	7	11	120	157	277	29
30	1	2	3	2	...	2	12	12	24	111	119	230	30
31	1	1	2	...	4	4	5	2	7	59	52	102	31
32	3	2	5	4	2	6	2	3	5	176	183	359	32
33	...	...	...	...	...	...	...	...	..	...	2	2	33
34	2	...	2	...	...	...	1	...	1	74	66	140	34
35	4	9	13	1	...	1	1	...	1	135	128	263	35
	295	287	582	297	223	520	723	682	1,405	16,048	14,025	30,073	

APPEN

ANNUAL

Deaths registered from FEVERS in the Districts of the

1.	2.	3.							
Number.	Districts.	Population according to Census of 1872.	*January.*			*February.*			Number.
			Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	430,300	232	156	388	161	110	271	1
2	Gurhwal, ...	309,947	75	82	157	119	70	189	2
3	Terai, ...	185,647	316	235	551	247	171	418	3
4	Bijnour, ...	714,415	569	439	1,008	428	397	825	4
5	Moradabad, ...	1,118,943	766	583	1,349	541	345	886	5
6	Bareilly, ...	1,506,547	1,574	1,178	2,752	891	657	1,548	6
7	Shahjehanpore, ...	945,705	791	603	1,394	494	345	839	7
8	Budaon, ...	934,454	484	388	872	271	236	507	8
9	Dehra Doon, ...	116,981	40	16	56	38	18	56	9
10	Saharunpore, ...	880,663	748	619	1,367	623	444	1,067	10
11	Moozuffernuggur, ...	704,000	583	390	973	432	338	770	11
12	Meerut, ...	1,271,454	748	552	1,300	487	381	868	12
13	Boolundshuhur, ...	936,733	430	423	853	354	351	705	13
14	Allygurh, ...	1,057,039	398	311	709	346	227	573	14
15	Etah, ...	700,688	448	356	804	349	273	622	15
16	Muttra, ...	892,542	266	246	512	230	170	400	16
17	Furruckabad, ...	919,091	726	470	1,196	452	267	719	17
18	Mynpoory, ...	753,971	766	466	1,232	456	329	785	18
19	Agra, ...	1,097,425	549	415	964	427	320	747	19
20	Etawah, ...	671,247	602	410	1,012	575	382	957	20
21	Cawnpore, ...	1,152,628	1,036	907	1,943	819	630	1,449	21
22	Futtehpore, ...	661,585	419	365	784	368	310	678	22
23	Jounpore, ...	1,022,555	922	647	1,569	666	451	1,117	23
24	Humeerpore, ...	527,540	325	190	515	296	170	466	24
25	Banda, ...	696,443	462	254	716	440	247	687	25
26	Allahabad, ...	1,382,826	794	662	1,456	721	547	1,268	26
27	Goruckpore, ...	2,044,821	1,540	994	2,534	798	522	1,320	27
28	Bustee, ...	1,487,572	1,000	745	1,745	688	387	1,075	28
29	Azimgurh, ...	1,497,580	749	527	1,276	409	304	713	29
30	Ghazeepore, ...	1,454,000	741	482	1,223	565	353	918	30
31	Benares, ...	793,433	413	295	708	304	214	518	31
32	Mirzapore, ...	1,087,200	664	520	1,184	599	433	1,032	32
33	Jaloun, ...	400,781	288	210	498	287	191	478	33
34	Jhansie, ...	311,773	246	182	428	242	147	389	34
35	Lullutpore, ...	214,593	79	54	133	79	58	137	35
	Total, ...	30,884,022	20,789	15,372	36,161	15,202	10,795	25,997	

DIX H.

FORM No. VIII.

North-Western Provinces during each Month of the Year 1872.

4.													5.
Number.	*March.*			*April.*			*May.*			*June.*			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	95	85	180	170	122	292	253	194	447	443	336	779	1
2	75	54	129	61	64	125	103	60	163	162	80	242	2
3	231	151	382	223	162	385	216	146	362	189	119	308	3
4	527	407	934	657	479	1,176	787	619	1,406	537	442	979	4
5	353	254	607	515	371	886	600	409	1,009	628	462	1,090	5
6	657	501	1,158	805	558	1,363	781	537	1,318	713	486	1,199	6
7	466	335	801	566	427	993	655	479	1,134	522	419	941	7
8	271	202	473	286	227	513	288	211	499	346	271	617	8
9	42	18	60	43	29	72	65	45	110	47	39	86	9
10	666	462	1,128	692	520	1,212	621	508	1,129	662	447	1,109	10
11	632	434	1,066	643	470	1,113	620	477	1,097	628	417	1,045	11
12	506	376	882	686	520	1,206	1,164	911	2,075	1,341	1,003	2,344	12
13	368	302	670	565	484	1,049	725	646	1,371	909	788	1,697	13
14	304	272	576	437	326	763	412	307	719	588	456	1,044	14
15	405	315	720	454	370	824	422	310	732	492	371	863	15
16	295	233	528	313	257	570	435	318	753	447	336	783	16
17	415	224	639	366	257	623	353	251	604	371	297	668	17
18	597	389	986	530	380	910	456	349	805	456	358	814	18
19	465	353	818	445	333	778	504	415	919	538	445	983	19
20	544	370	914	425	358	783	456	347	803	494	369	863	20
21	845	723	1,568	913	796	1,709	982	842	1,824	1,058	951	2,009	21
22	375	282	657	323	258	581	290	254	544	389	276	665	22
23	835	567	1,402	765	547	1,312	658	511	1,169	492	385	877	23
24	365	182	547	278	184	462	269	161	430	318	197	515	24
25	501	259	760	285	209	494	334	184	518	337	223	560	25
26	712	565	1,277	729	650	1,379	796	616	1,412	649	497	1,146	26
27	780	570	1,350	1,022	703	1,725	1,080	702	1,782	882	611	1,493	27
28	683	406	1,089	731	459	1,190	600	392	992	505	350	855	28
29	428	243	671	492	332	824	536	420	956	576	351	927	29
30	539	340	879	539	352	891	555	354	909	750	449	1,199	30
31	350	241	591	484	382	866	399	285	684	352	269	621	31
32	686	498	1,184	731	593	1,324	801	630	1,431	752	594	1,346	32
33	260	164	424	221	121	342	213	165	378	231	173	404	33
34	297	162	459	193	147	340	190	159	349	285	219	504	34
35	117	67	184	95	83	178	85	71	156	138	77	215	35
	15,687	11,006	26,693	16,723	12,530	29,253	17,704	13,285	30,989	18,227	13,563	31,790	

APPEN

ANNUAL

Deaths registered from FEVERS in the Districts of the North-Western

1.	2.											
Number.	Districts.	*July.*			*August.*			*September.*			Number.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	273	260	533	196	178	374	179	135	314	1
2	Gurhwal, ...	165	136	301	171	139	310	115	67	182	2
3	Terai, ...	138	107	245	160	101	261	179	137	316	3
4	Bijnour, ...	353	306	659	433	391	824	800	623	1,423	4
5	Moradabad, ...	443	348	791	673	516	1,189	1,258	1,007	2,265	5
6	Bareilly, ...	637	478	1,115	909	685	1,594	2,037	1,534	3,571	6
7	Shahjehanpore, ...	463	408	871	949	752	1,701	1,931	1,572	3,503	7
8	Budaon, ...	284	281	565	480	387	867	871	737	1,608	8
9	Dehra Doon, ...	34	14	48	59	24	83	59	30	89	9
10	Saharunpore, ...	455	340	795	511	441	952	823	721	1,544	10
11	Moozuffernuggur, ...	411	300	711	549	389	938	784	629	1,413	11
12	Meerut, ...	770	658	1,428	1,799	1,813	3,612	4,636	4,369	9,005	12
13	Boolundshuhur, ...	777	731	1,508	1,145	1,061	2,206	2,131	2 085	4,216	13
14	Allygurh, ...	514	447	961	899	669	1,568	1,543	1,338	2,881	14
15	Etah, ...	438	309	747	654	483	1,137	1,018	790	1,808	15
16	Muttra, ...	393	303	696	429	316	745	669	563	1,238	16
17	Furruckabad, ...	392	304	696	666	483	1,149	869	715	1,584	17
18	Mynpoory, ...	367	262	629	498	404	902	839	595	1,434	18
19	Agra, ...	471	432	903	843	794	1,637	1,144	975	2,119	19
20	Etawah, ...	415	313	728	553	504	1,057	772	685	1,457	20
21	Cawnpore, ...	768	659	1,427	1,141	930	2,071	1,589	1,222	2,811	21
22	Futtehpore, ...	264	208	472	271	288	559	453	405	858	22
33	Jounpore, ...	477	310	787	571	450	1,021	713	516	1,229	23
24	Humeerpore, ...	226	162	388	306	215	521	366	304	670	24
25	Banda, ...	221	157	378	300	233	533	405	362	767	25
26	Allahabad, ...	490	371	861	906	650	1,556	886	703	1,589	26
27	Goruckpore, ...	690	510	1,200	887	643	1 530	1,234	906	2,140	27
28	Bustee, ...	469	335	804	756	578	1,334	987	755	1,742	28
29	Azimgurh, ...	508	360	868	716	454	1,170	852	632	1,484	29
30	Ghazeepore, ...	750	490	1,240	934	644	1,578	1,450	1,132	2,582	30
31	Benares.	423	291	714	692	501	1,193	790	668	1,458	31
32	Mirzapore, ...	836	625	1,461	1,043	957	2,000	965	916	1 881	32
33	Jaloun, ...	146	123	269	255	187	442	342	251	593	33
34	Jhansie, ...	174	128	302	204	189	393	257	224	481	34
35	Lullutpore, ...	120	110	230	127	108	2 5	105	96	201	35
	Total, ...	14,755	11,576	26,331	21,685	17,557	39,242	34,051	28,405	62,456	

DIX H.

FORM No. VIII.—(*concluded.*)

Provinces during each Month of the Year 1872.

4.										5.			6.
Number.	*October.*			*November.*			*December.*			*Total.*			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	171	144	315	143	114	257	182	120	302	2,498	1,954	4,452	1
2	122	76	198	122	72	194	100	66	166	1,390	966	2,356	2
3	306	286	592	446	394	840	367	264	631	3,018	2,273	5,291	3
4	1,170	1,035	2,205	924	788	1,712	770	545	1,315	7,995	6,471	14,466	4
5	2,135	1,646	3,781	1,425	1,254	2,679	975	745	1,720	10,312	7,940	18,252	5
6	3,342	2,758	6,100	3,227	2,672	5,899	2,434	1,875	4,309	18,007	13,919	31,926	6
7	2,962	2,552	5,514	2,228	1,769	3,997	1,248	982	2,230	13,275	10,643	23,918	7
8	1,295	1,016	2,311	797	627	1,424	629	428	1,057	6,302	5,011	11,313	8
9	67	52	119	47	38	85	35	20	55	576	343	919	9
10	877	773	1,650	749	737	1,486	753	647	1,400	8,180	6,659	14,839	10
11	978	850	1,828	884	749	1,633	665	542	1,207	7,809	5,985	13,794	11
12	4,070	3,783	7,853	2,402	2,248	4,650	1,604	1,382	2,986	20,213	17,996	38,209	12
13	2,307	2,188	4,495	1,341	1,313	2,654	928	856	1,784	11,980	11,228	23,208	13
14	1,283	1,108	2,391	1,118	986	2,104	554	464	1,018	8,396	6,911	15,307	14
15	1,183	1,035	2,218	788	611	1,399	501	442	943	7,152	5,665	12,817	15
16	634	586	1,220	418	372	790	347	274	621	4,876	3,980	8,856	16
17	1,108	847	1,955	663	504	1,167	576	421	997	6,957	5,040	11,997	17
18	928	768	1,696	713	565	1,278	756	499	1,255	7,362	5,364	12,726	18
19	1,078	931	2,009	693	601	1,294	556	467	1,023	7,713	6,481	14,194	19
20	782	615	1,397	546	440	986	505	355	860	6,669	5,148	11,817	20
21	1,885	1,632	3,517	1,507	1,351	2,858	1,154	1,083	2,237	13,697	11,726	25,423	21
22	478	429	907	430	404	834	431	402	833	4,491	3,881	8,372	22
23	797	642	1,439	876	607	1,483	688	489	1,177	8,460	6,122	14,582	23
24	375	318	693	327	248	575	317	243	560	3,768	2,574	6,342	24
25	377	325	702	425	302	727	417	303	720	4,504	3,058	7,562	25
26	1,281	1,055	2,336	1,028	907	1,935	826	681	1,507	9,818	7,904	17,722	26
27	2,040	1,790	3,830	2,377	1,947	4,324	2,234	1,646	3,880	15,564	11,544	27,108	27
28	1,631	1,423	3,054	1,718	1,345	3,063	1,763	1,146	2,909	11,531	8,321	19,852	28
29	1,095	962	2,057	1,054	638	1,692	820	635	1,455	8,235	5,858	14,093	29
30	1,286	986	2,272	1,072	868	1,94	946	767	1,713	10,127	7,217	17,344	30
31	732	581	1,313	615	472	1,087	645	452	1,097	6,199	4,651	10,850	31
32	1,110	969	2,079	964	806	1,770	786	633	1,419	9,937	8,174	18,111	32
33	327	242	569	255	188	443	263	177	440	3,088	2,192	5,280	33
34	239	225	464	239	177	416	212	176	388	2,778	2,135	4,913	34
35	131	115	246	112	84	196	70	44	114	1,258	967	2,225	35
	40,582	34,743	75,325	32,673	27,198	59,871	26,057	20,271	46,328	274,135	216,301	490,436	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Districts

1. Number.	2. Districts.	3. Population according to Census of 1872.	January. Male.	January. Female.	January. Total.	February. Male.	February. Female.	February. Total.	Number.
1	Kumaon, ...	430,300	55	48	103	44	39	83	1
2	Gurhwal, ...	309,947	89	52	141	95	78	173	2
3	Terai, ...	185,647	1	1	2	1	...	1	3
4	Bijnour, ...	714,415	55	38	93	50	43	93	4
5	Moradabad, ...	1,118,943	125	92	217	104	72	176	5
6	Bareilly, ...	1,506,547	74	49	123	56	30	86	6
7	Shahjehanpore, ...	945,705	138	127	265	92	73	165	7
8	Budaon, ...	934,454	65	45	110	25	16	41	8
9	Dehra Doon, ...‹	116,981	15	11	26	5	5	10	9
10	Saharunpore, ...	880,663	130	53	183	93	68	161	10
11	Moozuffernuggur, ...	704,000	47	39	86	58	26	84	11
12	Meerut, ...	1,271,454	69	44	113	63	38	101	12
13	Boolundshuhur, ...	936,733	68	81	149	80	57	137	13
14	Allygurh, ...	1,057,939	86	57	143	53	44	97	14
15	Etah, ...	700,688	13	11	24	6	9	15	15
16	Muttra, ...	892,542	50	22	72	50	29	79	16
17	Furruckabad, ...	919,091	60	35	95	24	16	40	17
18	Mynpoory, ...	753,971	19	10	29	14	5	19	18
19	Agra, ...	1,097,425	62	49	111	52	41	93	19
20	Etawah, ...	671,247	21	8	29	16	6	22	20
21	Cawnpore, ...	1,152,628	113	81	194	88	67	155	21
22	Futtehpore, ...	661,585	162	143	305	147	103	250	22
23	Jounpore, ...	1,022,555	27	13	40	14	9	23	23
24	Humeerpore, ...	527,540	165	109	274	119	69	179	24
25	Banda, ...	696,443	91	56	147	62	41	103	25
26	Allahabad, ...	1,332,826	206	127	333	183	88	271	26
27	Goruckpore, ...	2,044,821	62	29	91	31	17	48	27
28	Bustee, ...	1,487,572	13	4	17	43	28	71	28
29	Azimgurh, ...	1,497,580	100	46	146	59	24	83	29
30	Ghazeepore, ...	1,454,000	43	24	67	37	27	64	30
31	Benares, ...	793,433	47	21	68	37	16	53	31
32	Mirzapore, ...	1,087,200	88	42	130	72	40	112	32
33	Jaloun, ...	400,791	50	36	86	37	23	60	33
34	Jhansie, ...	311,773	47	31	78	44	26	70	34
35	Lullutpore, ...	214,593	41	23	64	33	28	61	35
	Total, ...	30,884,022	2,497	1,657	4,154	1,978	1,301	3,279	

DIX I.

FORM No. IX.

of the North-Western Provinces during each Month of the Year 1872.

4.

Number.	March.			April.			May.			June.			Number.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	46	29	75	59	42	101	157	120	277	308	253	561	1
2	67	57	124	91	61	152	170	147	317	265	222	487	2
3	...	4	4	8	2	10	16	11	27	17	7	24	3
4	81	43	124	100	77	177	131	75	206	95	60	155	4
5	114	63	177	176	123	299	242	139	381	195	151	346	5
6	52	33	85	69	54	123	77	52	129	73	42	115	6
7	99	65	164	196	168	364	227	200	427	210	149	359	7
8	29	18	47	70	47	117	63	54	117	70	65	135	8
9	8	8	16	19	10	29	22	19	41	22	13	35	9
10	116	74	190	156	103	259	144	83	227	118	71	189	10
11	66	46	112	59	45	104	90	36	126	49	30	79	11
12	104	69	173	110	82	192	158	74	232	167	127	294	12
13	56	59	115	66	57	123	82	62	144	105	81	186	13
14	61	51	112	80	55	135	72	51	123	64	47	111	14
15	11	7	18	34	22	56	29	15	44	25	11	36	15
16	49	27	76	42	30	72	52	40	92	59	33	92	16
17	19	20	39	34	24	58	44	26	70	27	23	50	17
18	6	2	8	22	13	35	13	6	19	23	10	33	18
19	72	36	108	54	34	88	58	41	99	61	44	105	19
20	19	9	28	15	11	26	14	18	32	26	23	49	20
21	89	77	166	99	71	170	115	68	183	116	90	206	21
22	132	126	258	96	79	175	115	95	210	119	87	206	22
23	35	13	48	32	18	50	25	13	38	26	3	29	23
24	133	73	206	137	90	227	134	66	200	151	103	254	24
25	73	35	108	48	41	89	57	43	100	50	41	91	25
26	167	92	259	177	148	325	157	87	244	122	78	200	26
27	143	59	202	124	85	209	77	53	130	84	54	138	27
28	15	12	27	48	17	65	43	21	64	29	20	49	28
29	63	43	106	101	63	164	120	54	174	86	50	136	29
30	48	19	67	60	28	88	30	17	47	49	23	72	30
31	32	16	48	42	35	77	39	15	54	55	26	81	31
32	76	50	126	96	72	168	91	49	140	84	65	149	32
33	43	20	63	29	17	46	35	16	51	23	17	40	33
34	51	25	76	31	16	47	44	22	66	40	26	66	34
35	58	33	91	23	26	49	29	19	48	40	31	71	35
	2,233	1,413	3,646	2,603	1,866	4,469	2,972	1,907	4,879	3,053	2,176	5,229	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Districts

1.	2.										
Number.	Districts.	*July.*			*August.*			*September.*			Number.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1	Kumaon, ...	175	155	330	98	80	178	69	50	119	1
2	Gurhwal, ...	218	194	412	145	164	309	70	90	160	2
3	Terai, ...	15	7	22	20	14	34	17	18	35	3
4	Bijnour, ...	77	50	127	101	64	165	131	77	208	4
5	Moradabad, ...	188	120	308	320	285	605	526	424	950	5
6	Bareilly, ...	82	51	133	120	102	222	159	103	262	6
7	Shahjehanpore, ...	196	172	368	378	343	721	551	487	1,038	7
8	Budaon, ...	82	44	126	198	129	327	268	164	432	8
9	Dehra Doon, ...	12	9	21	19	3	22	20	14	34	9
10	Saharunpore, ...	95	56	151	128	118	246	142	103	245	10
11	Moozuffernuggur, ...	42	44	86	78	57	135	110	77	187	11
12	Meerut, ...	184	111	295	205	183	388	319	204	523	12
13	Boolundshuhur, ...	137	100	237	237	253	490	319	236	555	13
14	Allygurh, ...	83	81	164	249	207	456	452	333	785	14
15	Etah, ...	23	15	38	45	28	73	46	30	76	15
16	Muttra, ...	73	66	139	153	118	271	132	105	237	16
17	Furruckabad, ...	61	26	87	81	67	148	102	70	172	17
18	Mynpoory, ...	16	14	30	15	14	29	33	12	45	18
19	Agra, ...	104	66	170	196	140	336	211	206	417	19
20	Etawah, ...	25	27	52	56	42	98	27	26	53	20
21	Cawnpore, ...	100	67	167	175	114	289	185	139	324	21
22	Futtehpore, ...	95	74	169	170	117	287	172	163	335	22
23	Jounpore, ...	23	9	32	57	3	60	24	10	34	23
24	Humeerpore, ...	206	143	349	303	212	515	309	252	561	24
25	Banda, ...	62	48	110	115	104	219	180	133	313	25
26	Allahabad, ...	107	71	178	143	97	240	213	153	366	26
27	Goruckpore, ...	68	43	111	89	54	143	136	64	200	27
28	Bustee, ...	37	10	47	37	5	42	35	6	41	28
29	Azimgurh, ...	74	55	129	91	51	142	77	34	111	29
30	Ghazeepore, ...	52	40	92	77	52	129	91	60	151	30
31	Benares, ...	62	37	99	109	85	194	90	77	167	31
32	Mirzapore, ...	100	78	178	155	132	287	111	92	203	32
33	Jaloun, ...	38	24	62	48	12	60	58	31	89	33
34	Jhansie, ...	43	27	70	59	39	98	43	33	76	34
35	Lullutpore, ...	41	54	95	73	65	138	61	50	111	35
	Total, ...	2,996	2,188	5,184	4,543	3,553	8,096	5,489	4,126	9,615	

DIX I.

FORM No. IX—(*concluded.*)

of the North-Western Provinces during each Month of the Year 1872.

3.										4.			5.
	October.			*November.*			*December.*			*Total.*			
Number.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	68	41	109	46	32	78	52	47	99	1,177	936	2,113	1
2	38	40	78	51	54	105	76	42	118	1,375	1,201	2,576	2
3	43	16	59	19	23	42	11	2	13	168	105	273	3
4	205	147	352	152	105	257	98	81	179	1,276	860	2,136	4
5	701	536	1,237	469	383	852	290	206	496	3,450	2,594	6,044	5
6	168	121	289	120	108	228	114	72	186	1,164	817	1,981	6
7	571	506	1,077	523	399	922	361	251	612	3,542	2,940	6,482	7
8	270	225	495	128	99	227	71	59	130	1,339	965	2,304	8
9	23	11	34	16	3	19	15	10	25	196	116	312	9
10	151	106	257	138	92	230	137	94	231	1,548	1,021	2,569	10
11	87	78	165	62	49	111	58	39	97	806	566	1,372	11
12	185	122	307	113	85	198	109	58	167	1,786	1,197	2,983	12
13	144	122	266	118	93	211	88	87	175	1,500	1,288	2,788	13
14	254	204	458	208	159	367	80	65	145	1,742	1,354	3,096	14
15	34	32	66	26	19	45	16	11	27	308	210	518	15
16	72	54	126	50	31	81	60	49	109	842	604	1,446	16
17	73	44	117	29	21	50	36	13	49	590	385	975	17
18	17	6	23	17	12	29	20	10	30	215	114	329	18
19	134	111	245	101	74	175	84	64	148	1,189	906	2,095	19
20	18	22	40	21	10	31	22	20	42	280	222	502	20
21	154	167	321	132	96	228	106	70	176	1,472	1,107	2,579	21
22	178	155	333	180	148	328	183	144	327	1,749	1,434	3,183	22
23	31	9	40	11	7	18	19	2	21	324	109	433	23
24	238	179	417	185	126	311	148	105	253	2,219	1,527	3,746	24
25	179	132	311	142	93	235	121	77	198	1,180	844	2,024	25
26	282	176	458	212	144	356	186	129	315	2,155	1,390	3,545	26
27	201	131	332	189	155	344	145	63	208	1,349	807	2,156	27
28	20	9	29	15	9	24	21	6	27	356	147	503	28
29	84	47	131	81	31	112	90	47	137	1,026	545	1,571	29
30	61	23	84	59	26	85	81	34	115	688	373	1,061	30
31	110	59	169	70	39	109	65	40	105	758	466	1,224	31
32	135	94	229	91	80	171	70	47	117	1,169	841	2,010	32
33	51	33	84	41	28	69	39	15	54	492	272	764	33
34	42	27	69	32	32	64	42	36	78	518	340	858	34
35	56	31	87	44	28	72	30	26	56	529	414	943	35
	5,078	3,816	8,894	3,891	2,893	6,784	3,144	2,121	5,265	40,477	29,017	69,494	

APPENDIX K.

Statement showing the deaths registered in the Town and Rural Circles in each District of the North-Western Provinces during the year 1872.

Number.	District.	Number of Circles.	Circles.	Population.	Deaths registered.	Ratio of deaths per 1,000 of Population.
1	Kumaon, ...	2	Town Circles, ...	No deaths registered in Towns separately during 1872		
		6	Rural " ...	430,300	8,944	20·78
2	Gurhwal, ...		Town " ...	No Town Circle exists.		
		12	Rural " ...	309,947	5,856	18·89
3	Terai, ...	2	Town " ...	19,974	493	24·68
		8	Rural " ...	165,673	5,565	33·59
4	Bijnour, ...	11	Town " ...	115,193	3,649	31·67
		23	Rural " ...	599,222	18,925	31·58
5	Moradabad, ...	8	Town " ...	189,758	6,155	32·43
		20	Rural " ...	929,185	23,084	24·84
6	Bareilly, ...	3	Town " ...	142,561	2,958	20·74
		31	Rural " ...	1,363,986	37,177	27·25
7	Shahjehanpore, ...	6	Town " ...	113,516	4,357	38·38
		20	Rural " ...	832,189	39,746	47·76
8	Budaon, ...	5	Town " ...	67,214	1,497	22·27
		17	Rural " ...	867,240	16,935	19·52
9	Dehra Dhoon, ...	1	Town " ...	14,195	369	25·99
		8	Rural " ...	102,786	1,437	13·98
10	Saharunpore, ...	7	Town " ...	171,523	5,845	34·07
		21	Rural " ...	709,140	20,370	28·72
11	Moozuffernuggur, ...	10	Town " ...	91,094	1,762	19·34
		20	Rural " ...	612,906	15,095	24·62
12	Meerutt, ...	12	Town " ...	165,117	8,765	53·08
		32	Rural " ...	1,106,337	36,441	32·93
13	Boolundshuhur, ...	10	Town " ...	110,761	3,088	27·87
		25	Rural " ...	825,972	27,070	32·77
14	Allygurh, ...	10	Town " ...	129,329	4,843	37·44
		24	Rural " ...	928,610	16,184	17·42
15	Etah, ...	7	Town " ...	59,907	2,129	35·53
		13	Rural " ...	640,781	13,376	20·87
16	Muttra, ...	7	Town " ...	124,199	3,674	29·58
		27	Rural " ...	768,343	8,808	11·46
17	Furruckabad, ...	9	Town " ...	365,893	7,347	20·08
		13	Rural " ...	553,268	9,426	17·03
18	Mynpoory, ...	4	Town " ...	42,967	1,314	30·58
		17	Rural " ...	711,004	12,509	17·73
19	Agra, ...	5	Town " ...	184,078	6,894	37·45
		33	Rural " ...	913,374	12,434	13·61
20	Etawah, ...	3	Town " ...	39,447	1,581	40·07
		20	Rural " ...	631,800	12,891	20·40
21	Cawnpore, ...	4	Town " ...	287,016	5,430	18·91
		25	Rural " ...	865,612	27,071	31·27
22	Futtehpore, ...	3	Town " ...	37,048	941	25·39
		22	Rural " ...	624,537	12,998	20·81
23	Jounpore, ...	2	Town " ...	33,306	1,826	54·82
		19	Rural " ...	939,249	22,838	23·08
24	Humeerpore, ...	8	Town " ...	59,891	1,364	22·77
		24	Rural " ...	467,649	11,409	24·39
25	Banda, ...	5	Town " ...	44,637	965	21·61
		26	Rural " ...	651,806	10,758	16·49
26	Allahabad, ...	6	Town " ...	74,671	2,701	36·17
		30	Rural " ...	1,308,155	25,040	19·14
27	Goruckpore, ...	3	Town " ...	61,418	1,984	32·30
		35	Rural " ...	1,983,403	34,823	17·55
28	Bustee, ...	3	Town " ...	No deaths registered in Towns separately during 1872.		
		25	Rural " ...	1,487,572	34,817	23·40
29	Azimgurh, ...	3	Town " ...	32,009	491	15·33
		26	Rural " ...	1,465,571	19,612	13 38
30	Ghazeepore, ...	5	Town " ...	No deaths registered in Towns separately during 1872.		
		25	Rural " ...	1,454,000	20,263	13.93
31	Benares, ...	2	Town " ...	203,266	3,117	15·33
		17	Rural " ...	590,167	11,535	19·54
32	Mirzapore, ...	3	Town " ...	80,925	9,748	120·45
		23	Rural " ...	1,006,275	15,454	15·35
33	Jaloun, ...	4	Town " ...	54,058	1,032	19·09
		21	Rural " ...	346,723	6,184	17·83
34	Jhansee, ...	6	Town " ...	76,523	1,887	24·65
		21	Rural " ...	235,250	5,246	22·29
35	Lullutpore, ...	2	Town " ...	17,140	373	21·76
		22	Rural " ...	197,453	4,253	21·53
Total, ...		181	Town Circles,...	3,208,564	98,579	30·72
		751	Rural " ...	27,675,458	604,669	21·84
Grand Total, ...		932		30,884,022	703,248	22·77

ORDERS OF GOVERNMENT.

No. 278A. OF 1873.

FROM

THE SECRETARY TO GOVERNMENT,

NORTH-WESTERN PROVINCES,

TO

THE SANITARY COMMISSIONER,

NORTH-WESTERN PROVINCES.

DATED NYNEE TAL, THE 26TH SEPTEMBER, 1873.

SIR,

GENERAL DEPARTMENT (SANITATION.)

I AM directed to convey the remarks and orders of the Lieutenant-Governor on your Annual Report for the year 1872.

2. Your first chapter contains a sketch of the progress of mortuary registration during the year. The new system of entrusting the duty of reporting deaths to the village chowkeedars, and the registration of the deaths to the clerks at Police stations, has resulted in fuller and more accurate returns than those of any former year; and it is hoped that the improved form of register, which you have lately issued, will further facilitate the preparation of the returns. The necessity of recording the census population of each mortuary circle is acknowledged : there can be no difficulty in ascertaining it, and Mr. Plowden will be instructed to aid you in obtaining the necessary figures.

3. *Paras.* 5 *to* 9.—Your map of registration circles, in which you propose to show the origin and progress of serious outbreaks of epidemic disease, has been submitted since the report was printed, and will be a valuable contribution as bringing readily before the eye the facts registered during the year, and of enforcing the conclusions to be drawn from them. The Chief Commissioner of Oudh will be invited to co-operate by furnishing a similar map of that intervening Province; and it is hoped that in future you will (acting in communication with the Sanitary Officer of Oudh) be able to trace the progress of disease without break of continuity over the whole area comprised in the combined map. The map has been lithographed in three parts ; but to illustrate any general argument pertaining to the whole of these Provinces, it will be necessary to join them, the Oudh portion included, together. A copy should be submitted with each Annual Report to illustrate anything abnormal in the returns of the year.

4. *Para.* 10.—The total number of deaths registered during the year was 703,248, which, on a population of thirty-one millions, gives an average life value of forty-four years, being very near the standard in England.

The returns of the previous year gave a life value of fifty-one years, and of the year before sixty-one years. Conversely, the percentage of registered deaths per thousand has risen from 17·9 in 1869 to 23 in 1872,—the ratio in England being about 22·5.

5. It is obvious that the more recent figures (though still far from exhaustive) are becoming yearly more complete, and the growing accuracy is highly satisfactory. There are still some backward districts (two or three specially so), and there are backward parts probably in every district. But in a country where the population is spread over so vast a surface, where the outlying agricultural villages are so secluded and ignorant, and where our immediate agency itself is so rude and unlearned, defects of mortuary registration, from omissions or imperfect recollection of details, are not to be wondered at. But it is evident that the system begins to be everywhere better understood and more carefully attended to, and with steady perseverance these shortcomings will daily decrease. For this important end, it is essential that all authorities heartily co-operate. The Civil Surgeon, who is the Mortuary Registrar of the district, has little opportunity of personal investigation into the accuracy of the registration, except as far as the returns he receives suggest inquiries and doubts; but the Magistrate and District Superintendent, with the Magistrate's staff, have the means of testing the returns from time to time on the spot; and while on tour they should lose no opportunity of doing so.

6. There ought to be less difficulty in ensuring complete registration in the large cities and towns than in the country, for there the inhabitants are more enlightened, and are also used to such returns, which moreover in a compact population can be made more surely and promptly. And it is from the town circles that you will in all probability obtain your first approach to really exact data on which to found a sufficient induction as to the general death-rate, and the death-rate of different classes, ages, and occupations, in Northern India.

7. Your report does not touch on the death-rates returned by urban and rural circles respectively; nor is there any special mention of the Municipal returns, which, being prepared by a special agency under special legal sanction, might be expected to be more accurate than others. These points are important, and should be specially noticed in future. While some of the Municipal returns are as yet lamentably defective, the majority, it is believed, are becoming daily more reliable.

8. The Lieutenant-Governor considers that you are right in holding that we must not rest satisfied till our figures show a materially higher rate of mortality than they do at present. We have no certain data as yet to fix even approximately the general death-rate or that of any particular period of life; but there can be little doubt that the presumption stated in your para. 15 is well founded, *viz.*, that a registration which gives an average duration of life equal to that in England, is altogether inadequate. This conclusion is borne out by reference to district

details. Twelve districts are mentioned in your para. 16 as giving an average life value of thirty-three years ; these no doubt include some extensive tracts, in which there was an exceptional and lamentable mortality from epidemic fever sufficient materially to raise the normal rate ; and there can be no question that even here the same influences, tending to defective registration, were at work as elsewhere ; and that the real mortality must certainly have been much higher than that deduced from the registration. In almost all the other districts the returns are markedly inadequate. Three of them, *viz.*, Ghazeepore, Azimgurh, and Muttra, have long had a bad pre-eminence. The average of life given by their returns (above 70 years) is so extravagantly wrong, that the authorities must make a vigorous effort to trace out the cause of the exceptional laxity which prevails in the registration of their districts, and take effective measures to remedy it. The best and worst districts, as regards adequacy of registration, are given in the margin. Special instructions will be issued to the officers in charge of the worst districts.

Best.	Rate per mille.	Worst.	Rate per mille.
Shahjehanpore, ...	46·63	Azimgurh, ...	13·42
Meerut, ...	35·55	Ghazeepore, ...	13·93
Terai, ...	32·63	Muttra, ...	13·98
Boolundshuhur, ...	32·19	Dehra Doon, ...	15·43
Bijnour, ...	31·59	Banda, ...	16·32
Saharunpore, ...	29·76	Agra, ...	17·61
Cawnpore, ...	28·19	Jaloun, ...	18·00
Bareilly, ...	26·64	Benares, ...	18·46
Moradabad, ...	26·13	Budaon, ...	19·72

9. *Paras.* 20 *to* 22.—The close correspondence between the death-rates of Hindoos and Mahomedans, as shewn in the margin, may be taken as satisfactory evidence that the same principles and procedure were observed uniformly throughout the country, and also that there is no class opposition to registration. The figures in your para. 20 have to be altered through the revision of the Census Returns, and it is also noticed that you have included among Hindoos not only "other castes" (which it is presumed means low Hindoos) but also Christians. By the corrected figures, the percentage of Mahomedan deaths differs from that of Hindoos by the same ratio by which it differed last year. Still this excess is inconsiderable; and indeed the death-rate of the Mahomedans might have been expected to be greater than that of the Hindoos, seeing that they are on the whole better educated and their mortuary returns are therefore likely to be fuller.

	Estimated population in 1872.	Deaths registered in 1872.	Rate per mille.
Hindoos, ...	26,569,068	602,604	22·7
Mahomedans, ...	4,189,348	100,345	32·9
	30,758,416	702,949	22·8

10. *Paras.* 23 *to* 24.—The death-rates according to ages were as follows:—

Details.	1871-72.		1872-73.	
	Number of deaths registered.	Rate per mille.	Number of deaths registered.	Rate per mille.
Born dead, ...	6,581	·21	6,635	·21
One year and under, ...	90,457	2·94	111,138	3·59
1 to 6, ...	101,811	3·27	127,324	4·12
6 to 12, ...	34,173	1·11	45,150	1·46
Total of minors, ...	233,022	7·57	290,247	9·43
12 to 20, ...	31,851	1·03	40,700	1·31
20 to 30, ...	56,044	1·82	70,377	2·27
30 to 40, ...	55,909	1·82	69,175	2·23
40 to 50, ...	60,493	1·96	73,900	2·39
50 to 60, ...	66,134	2·15	78,096	2·52
Exceeding 60, ...	75,197	2·44	80,753	2·61
Total of adults, ...	345,628	11·23	413,001	13·42

The true death-rate among children must be vastly in excess of this, and it is here indeed that registration would naturally be most deficient; an adult is missed and the death therefore more likely to be reported, but the death of infants and young children may easily be overlooked in the present state of society in India. The following table shows the order in which the different districts stand in respect of the registration of the death of minors. Those at the bottom of the list (Azimgurh, Banda, Ghazeepore, Mynpoory) have done worst in this respect, and require the most careful watchfulness on the part of the Magistrates and other officers concerned.

	1. District.	2. Deaths among minors, 0 to 12.	3. Population of minors.	4. Percentage of column 2 to column 3.
1	Shahjehanpore, ...	23,388	331,781	7·04
2	Boolundshuhur, ...	19,257	343,223	5·60
3	Bijnour, ...	13,051	250,943	5·20
4	Meerut, ...	19,824	427,584	4·63
5	Saharunpore, ...	12,818	305,054	4·20
6	Moradabad, ...	15,234	389,752	3·90
7	Terai, ...	2,091	58,154	3·59
8	Lullutpore, ...	2,397	70,630	3·39
9	Cawnpore, ...	11,465	341,260	3·35
10	Bareilly, ...	17,711	539,309	3·28
11	Moozuffurnuggur, ...	7,315	224,149	3·26
12	Humeerpore, ...	5,122	157,246	3·25
13	Etah, ...	7,605	246,531	3·08
14	Muttra, ...	5,300	173,741	3·05
15	Allygurh, ...	11,231	375,290	2·99
16	Jhansie, ...	2,683	91,319	2·92
17	Mirzapore, ...	9,641	341,407	2·82
18	Budaon, ...	9,175	333,880	2·74
19	Kumaon, ...	4,213	154,956	2·71
20	Gurhwal, ...	3,041	113,617	2·67

1.	District.	2. Deaths among minors, 0 to 12.	3. Population of minors.	4. Percentage of column 2 to column 3.
21	Jounpore, ...	8,160	338,222	2·41
22	Bustee, ...	12,062	533,902	2·25
23	Agra, ...	7,779	358,507	2·17
24	Benares, ...	5,274	254,736	2·07
25	Allahabad, ...	8,916	450,250	1·98
26	Etawah, ...	3,869	212,918	1·81
27	Furruckabad, ...	5,130	297,809	1·72
28	Futtehpore, ...	3,423	197,942	1·72
29	Goruckpore, ...	11,732	684,444	1·71
30	Dehra Doon, ...	621	37,570	1·65
31	Jaloun, ...	1,870	119,468	1·56
32	Mynpoory, ...	3,744	253,539	1·47
33	Ghazeepore, ...	5,982	414,266	1·44
34	Banda, ...	2,907	217,746	1·33
35	Azimgurh, ...	6,216	476,805	1·30
	Total, ...	290,247	10,117,950	2·86

11. In the orders on your last Annual Report you were requested to notice prominently the comparative mortality among male and female children as bearing on the subject of infanticide, and of the risks and dangers which attend the lives of either sex in their earlier years. The Lieutenant-Governor regrets to observe that the subject has not been treated of in the present report.

12. *Paras.* 28-33.—In your remarks on the meteorology of the year (para. 30), you say that the cold-weather rain-fall of previous years was not so carefully recorded as that of 1872. His Honor can hardly concur in this observation. The winter rain-fall has been attentively registered for many years, but it is often scanty, if not entirely absent, and sometimes the showers are so light as not to yield any palpable measure in the rain guage. The meteorological returns submitted to the Board of Revenue from each Tehseelee would have afforded you better data on this subject than you have yourself been able to collect.

13. *Paras* 39-41.—The following table shows the ratio in which the principal diseases of the country contributed to the general mortality:—

	1870.	1871.	1872.
Fever, ...	10·9	14·2	15·87
Bowel complaint, ...		1·9	2·25
Small-pox, ...	·7	1·2	1·11
Cholera, ...		0·1	1·63

14. *Para* 42.—The marginal table shows that there has been a steady increase in the number of deaths from fever, which has almost trebled in five years. But some considerable part of the increase may be set down to improved registration. The Lieutenant-Governor is glad to record that the current year (1873-74) has thus far shown a very marked decrease in the reach and virulence of this disease.

	No. of deaths.
1867, ...	... 172,144
1868, ...	... 173,205
1869, ...	... 246 833
1870, ...	... 322,913
1871, ...	... 421,131
1872, ...	... 490,436

15. Even in 1872 fever had to a considerable degree deserted its old haunts of Saharunpore and Moozuffernuggur. The worst fever districts in 1872 were (1) Meerut with a death-rate from this cause of 30 per mille, (2) Terai with 28·5, (3) Shahjehanpore with 25, (4) Boolundshuhur with 24. In 1871 the fever death-rate was 46·9 per mille in the Terai, 23·86 in Meerut, and only 16 per mille in Shahjehanpore.

16. *Paras.* 43-47.—With respect to your remarks on the connection between the prevalence of fever and over-irrigation from canals, the Lieutenant Governor remarks that so far nothing conclusive has been arrived at. The circle map may throw some light on the subject, but it will often happen that while a portion of a circle is irrigated by a canal, the rest is not. The Meerut figures quoted by you bear more closely on the subject than those of Etah, which is certainly not notorious as suffering from over-irrigation. Works are in progress in respect of the Aboo Nulla, and the depressed basin near Begumabad in the Meerut District, from which beneficial effects are expected in ameliorating the climate. Similar works are in progress in the Katha Nuddee in Moozuffernuggur and at the town of Saharunpore. Others are being projected further down the Doab. The attention of the Irrigation Branch will be called to your remarks generally, as well as to those on the interference of Irrigation earthworks with the natural drainage lines of the country. When these are choked or water-logged, the influences at work may be as bad or worse than in over-irrigated tracts; and this is a point which must be kept in view in your irrigation map. I am to request that you will procure sketches of the tracts referred to from the Irrigation Department, together with information as to what remedial measures are being adopted, and submit to Government along with any suggestions you may yourself have to make on the subject.

17. *Para.* 48.—Small-pox was most prevalent in Saharunpore (6 per mille) and Bijnour (5·36 per mille), Shahjehanpore (3·21 per mille), and Bareilly (1·88 per mille). In these four districts the number of vaccinators was doubled in 1872-73, and it may be hoped that we shall see a diminution in the prevalence of this scourge. In 1871 Bijnour headed the list with 10 per mille. Your Form VII. separates male from female deaths by small-pox, but not those of children and adults. The latter information would be useful to the Vaccination Department, and was asked for in para. 14 of last year's review.

18. *Para.* 49-52.—The deaths from cholera in the worst districts in 1872 were as follows :—Jounpore 8·06 per mille, Bustee 6·41, Shahjehan-

pore 4·65, Furruckabad 2·76. In 1871, the highest rate was at Benares, 0·83. In the year under report 17 districts exceeded that rate.

19. The cholera table at para. 51 of your report is noteworthy, as showing how the disease (instead of confining itself to the east and Trans-Jumna districts) spread northwards into the Rohilkhund and Agra Divisions towards the close of the year. No mention is made by you of its origin in Oudh, and its spread thence to the Allahabad and Jounpore Districts, in the beginning of the year,—a fact which your combined circle map for Oudh and the North-Western Provinces would have been useful in illustrating.

20. The cholera maps are interesting, as showing where the disease appeared in epidemic form, but their value is greatly impaired by their not giving the population and the percentage of deaths to it. This could have been given for the towns ; and as orders are being issued for the preparation of population returns of rural circles, it will be possible, and should be carried out in the maps submitted with your next report. The same information in different colored ink might be given for fever and small-pox, wherever they are unusually prevalent.

21. *Para.* 53-66.—The year was marked by the appearance of a new form of fever, the dengue, which you consider to have been more frequently fatal than is commonly supposed. This may very likely have been the case, especially in its secondary results, as prostrating the system and pre-disposing it to other diseases. The suddenness with which it struck down nearly the whole population in some localities, and led to the closing for a time of the public offices (as at Agra) is very remarkable. It was largely commented on in the native prints.

22. *Para.* 417.—An attempt was made during the year in several Municipalities to introduce a system of registration of births. The results hitherto have not been very favourable, but neither is there any ground for discouragement. A birth is generally an event of less interest to the community than a death, especially the death of an adult, and there is at present less disposition to register the birth than the death: To ensure accuracy and completeness, the combined aid is required of the Magistrate, the Municipal Committee, the District Superintendent of Police, the Civil Surgeon, and yourself.

23. *Paras.* 67-70.—Your local inspections embraced the chief towns (32 in number) of the Meerut, Boolundshuhur, and Allygurh Districts, and were of the usual searching character. Some of your reports on these towns were received by Government in manuscript at the time, (all should have been so received), and were sent to the Magistrates of the Districts to make immediate use of the suggestions they contained. The rest will be forwarded now with such remarks as seem called for in each case.

24. His Honor would have been glad if you had reported fully as to the sanitation of military bazaars. The Civil Department is partially responsible for these, and their state affects indirectly the health of the city and suburbs near which the bazaar is situated.

25. *Para.* 418.—Your remarks on the defective sanitation of outlying villages are concurred in. The subject is one of great difficulty. The vast number of villages and hamlets scattered over the country could not be supervised by superior agency, and to employ inferior agents on such a work would not secure the desired result, while it would open numerous opportunities of extortion and oppression, which such a course is always found in this country to bring in its wake. The people too are apathetic, and even if roused at times of sickness, they soon relapse into their usual indifference, and then the only sound of complaint heard is when they are disturbed in their old habits. Then again each village and hamlet would need to be treated according to its special requirements. A general raid against "holes" and "pools" might effect as much evil as good, and instead of carrying the people with us (a necessary condition of success) might set them against us. All that can at present be done is for the District Officer and his staff to take up individual cases, and endeavour to effect some permanent improvement in cleanliness and drainage.

26. *Para.* 421.—Your favorable report of the drainage scheme in the Saharunpore town has been received by the Lieutenant-Governor with pleasure, and His Honor joins with you in believing that good results may certainly be expected.

27. In conclusion, I am to convey to you the Lieutenant-Governor's thanks for this elaborate report, and for the careful local inspections, the results of which are embodied in it. On a general retrospect, it may be admitted that little has yet been done, except in a few local drainage projects, to improve the general sanitation of the agricultural population and small outlying towns; but, as noticed in your 418th para., there has been a marked advance in the cleanliness and drainage of the larger centres of population; and the most hopeful feature is that this has been mainly obtained through the Municipal Committees. The testimony you have so freely given to the continued improvement in the centres of population, and to the increasing interest taken in the subject by these popular Institutions, is eminently satisfactory. From what has been accomplished in the past, steady improvement may be looked for in time to come.

28. You have now filled the post of Sanitary Commissioner for nearly six years, and during the whole course of Sir William Muir's administration, he has ever found you the same earnest and kindly advocate of the best interests of the people, and now in this last review of your proceedings, for the faithful discharge of your duties His Honor thanks you cordially.

I have the honor to be,

SIR,

Your most obedient Servant,

Secretary to Government,

North-Western Provinces.

No. 279A.

Copy of Review forwarded to Mr. W. C. Plowden, in charge of the Census, North-Western Provinces, with special reference to para. 2.

No. 280A.

Copy of Review also forwarded to Joint-Secretary to this Government, in the Irrigation Branch, with special reference to para. 16.

SIXTH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

1873.

ALLAHABAD:

PRINTED AT THE NORTH-WESTERN PROVINCES' GOVERNMENT PRESS.

1874.

TABLE OF CONTENTS.

CHAPTER I.

	Page.
Mortuary registration of 1873, ...	1
Recent order about new form of Age registration, ...	*ib.*
Attention given by all concerned in the Mortuary registration, ...	*ib.*
Manner in which the monthly forms are used and filed by Circle Registrars, ...	2
Punctual submission of monthly statements by District Registrars, ...	*ib.*
Appointment of Mortuary Clerks being instrumental to the Civil Surgeons for undertaking the duty of registration willingly, ...	*ib.*
Supply of District maps with limits of Mortuary circles to Civil Surgeons, ...	2
Submission to Government of a Provincial map in which the mortality from Cholera, Small-pox, and Fever will be entered, ...	*ib.*
Submission of Cholera map, ...	3
Total deaths registered, ...	*ib.*
Class of those who died, ...	4
Age of those who died, ...	*ib.*
Ratio of deaths at different periods of life, ...	*ib.*
Sex of those who died, ...	5

CHAPTER II.

	Page.
Meteorology of the year, ...	6
Scanty rainfall and failure of food crops during the year, ...	7
Threatened distress on account of the above in the eastern districts, ...	8
High price of all kinds of food,... ...	*ib.*
Concerning the poverty and misfortune of the people of the southern districts, ...	*ib.*
Concerning the condition of the people of the province at large and high price of food articles, ...	*ib.*
Greatest suffering on account of poverty of the poor people of certain pergunnahs of the Humeerpore and Banda Districts, ...	9
Impression of the local native authorities on account of the above, ...	*ib.*
Introduction of the system of irrigation as relief works for the suffering poor of the Banda and Humeerpore Districts, ...	*ib*
Good results by the permanent bridging of the Cane river at Banda, ...	10

CHAPTER III.

	Page.
History of mortality and chief diseases, ...	11
Relative mortality of the Cold, Hot, and Rainy seasons, ...	*ib.*
Deaths from Zymotic causes according to season, ...	*ib.*
Deaths from Fever, ...	*ib.*
Deaths from Cholera, ...	12
Table illustrating the season of the year in which Cholera prevailed, ...	13
Deaths from Small-pox, ...	14
Advantage of Vaccination, ...	15
Deaths from Bowel Complaints, ...	*ib.*

CHAPTER IV.

	Page.
INSPECTION OF SANITARY COMMISSIONER—	
Sanitary arrangements of the Agra Durbar held in November, 1873, ...	20
Sanitary Commissioner's inspection of the Towns of the Allahabad Division, ...	21
Definition of the ultimate aim and result of good Government, ...	*ib.*
Recent order of Government prohibiting the inclusion of a detailed account of the towns inspected in Sanitary Reports, ...	*ib.*
Description of the Allahabad Division, ...	22
Names of the important towns of the Allahabad Division, ...	23
Population of the above, ...	*ib.*
Description of the villages of the Allahabad Division, ...	*ib.*
Sanitary condition of the town and village sites and their improvement, ...	24
Protection and attention necessary for the improvement of the custom of planting trees in village sites, ...	*ib.*
Description of the towns of the Jounpore District made in a previous report, ...	25
Condition of the towns of the Cawnpore District, ...	26
Report on the Cawnpore city, ...	26-32
„ Bithoor town, ...	32-35
Report on the Bilhour Town, ...	35-36
„ Akberpore Town, ...	37-41
Condition of the towns of the Humeerpore District, ...	42
Report on the town of Raath, ...	42-45
„ „ Muhoba, ...	45-47
„ „ Koolpahar, ...	48-49
„ „ Mowdha, ...	50-52
„ „ Somerpore, ...	52-53
„ „ Jeitpore, ...	53-55
„ „ Humeerpore, ...	55-58
Condition of the towns of the Banda District, ...	59
Report on the town of Banda, ...	59-62
„ „ Kirwee, ...	62-65
„ „ Rajapore, ...	65-67
„ „ Mutthound, ...	67-68
Condition of the towns of the Futtehpore District, ...	69
Report on the town of Futtehpore, ...	69-72
„ „ Khujwa, ...	72-74
„ „ Bindkee, ...	74-76
Condition of the towns of the Allahabad District, ...	77
Report on the city of Allahabad, ...	77-81
„ town of Mow Aymah, ...	81-82
„ „ Phoolpore, ...	83-85

CHAPTER V.

	Page.		Page.
Sanitary improvement during the year, ...	86	Improvement in drainage of the canal-irrigated land of the Doab, ...	88
Birth registration in municipal towns, ...	*ib.*	Allotment for works of drainage in connection with canals, ...	89
Registration of Deaths, Births, and Marriages in Cantonments, ...	87		
Progress in sanitary improvement of Towns and Cities, ...	*ib.*		

APPENDICES.

				Page.
Appendix A.,	Annual Form No. I.,		Deaths registered in different districts of the N.-W. P. during the year 1873, ...	ii. & iii.
Ditto B.,	ditto	II.,	Deaths registered in the Rural Circles and Towns of the N.-W. P. during each month of the year 1873,	iv. to xiii.
Ditto C.,	ditto	III.,	Deaths registered from different causes in the N.-W. P. during the year 1873, ...	xiv. to xxix.
Ditto D.,	ditto	IV.,	Deaths registered according to Age in the N.-W. P. during the year 1873, ...	xxx. to xxxiv.
Ditto E.,	ditto	V.,	Deaths registered according to Classes in the N.-W. P. during the year 1873, ...	xxxv. to xxxix.
Ditto F.,	ditto	VI.,	Deaths registered from Cholera in the N.-W. P. during each month of the year 1873, ...	xl. to xlvii.
Ditto G.,	ditto	VII.,	Deaths registered from Small-pox in the N.-W. P. during each month of the year 1873, ...	xlviii. to lv.
Ditto H.,	ditto	VIII.,	Deaths registered from Fevers in the N.-W. P. during each month of the year 1873, ...	lvi. to lxiii.
Ditto I.,	ditto	IX.,	Deaths registered from Bowel Complaints in the N.-W. P. during each month of the year 1873, ...	lxiv. to lxxi.
Ditto J.,	ditto	X.,	Births registered in the Municipalities in the N.-W. P. during 1873, ...	lxxii. to lxxv.
Ditto K.,	ditto	XI.,	Deaths, Births, and Marriages registered in the cantonments of the N.-W. P. during 1873, ...	lxxvi. & lxxvii.

N.W.P.

1873.

SIXTH ANNUAL REPORT OF THE SANITARY COMMISSIONER OF THE NORTH-WESTERN PROVINCES.

CHAPTER I.

MORTUARY STATISTICS.

During the year 1873 mortuary registration continued to be carefully effected by the agency of the Police in the forms established in 1870, and as during the year no change was made in the forms, the registration was effected with regularity and uniformity. This is an essential element of success in an undertaking which requires for its accomplishment the preparation of returns from 870 stations, all of which have to be supplied with printed forms from the seat of Government. The very slightest change in the form of registration entails a very great amount of work and correction in my office, for working through so many agents it is quite impossible to ensure a punctual discontinuance of the old form of registration, and a commencement of the new, in all places of registration. In 1872, one great trouble of this kind, which grew out of the necessity of registering the age at death in sexes separately, whereas before the age at death was recorded for males and females together, was successfully overcome after much correspondence and change of form in registers and returns.

Recently it has been ordered that the registration of the age at death shall not be effected at ten separate periods of age as before, but at four periods, namely, of infancy, childhood, manhood, and old age, which will necessitate a second great change in the size and form of the papers in use, from the smallest to the greatest. I think these changes were very necessary, and the second especially, as conducing to correctness of registration amongst a people who, with few exceptions, do not habitually take note of age by years. Indeed I did recommend this form of age registration at the time the new forms were established, and my recommendation was unanimously accepted by the members of a Conference which assembled at Nynee Tal in 1869. The facts will be found in this Government Proceedings, General (Sanitation) Department, of 9th July 1870, No. 10, dated 4th September 1869. And my object in bringing these changes to prominent notice is to enforce as much as I can the extreme undesirableness of any sudden change of form when it affects an undertaking of this magnitude. Experience teaches me that the result is sure to be increase of trouble and anxiety to the establishments on whom the work falls, or an increase of expenditure to Government. For example, an edition of 1,000 registers in the old form, sufficient for the wants of the province probably for two years, has just been issued from the Government Press. Certainly I do not intend that this edition should be wasted; but the result will be that for the next two years the work of classing the ages at death after the new method will have to be effected in my office from the forms now in use.

2. During the past year, I believe, a very great amount of attention has been given by all concerned to the business of mortuary registration. I have examined and tested every year the registers and monthly returns of many stations in all parts of the province, and have never been able to detect any important mistake in them, such as would prove that the facts are entered carelessly in the register, or copied neglectfully into the returns. On the contrary, taking into consideration the rather complex

nature of the forms, with their many columns, I do think the Police clerks, as a class, are wonderfully painstaking in this matter, and deserve my best thanks therefore. I wish my thanks thus publicly recorded could be of any value to them. But thanks and praise are all I have to give, as I have often explained to them verbally when much impressed by the goodness of the work thus gratuitously done.

During the past year, in some districts, I have noticed that the monthly duplicate returns have been bound or stitched into sets of 12 for the year, as should always be done. In other districts the forms have not been stitched together, although copies of the returns have been kept as separate leaves. But in the Banda District I have noticed that the form printed in duplicate has been divided, each half being used for the return of a different month, no copy of the return being kept at the station.

The universality of this practice makes me think that it must have been ordered by superior authority. The register also in Banda, instead of being written in only on the days when a death or deaths are reported, is written in daily, so that much space is allotted to days in which no report of death was made. Perhaps throughout the year about as much space is thus wasted as utilized at some stations; and in this way the register, which might suffice for the registration of two years, is filled in one year,—a very serious consideration, as the registers are carefully printed books prepared at some cost. These new registers, which were issued during the past year for the first time, have proved a great help to correctness of registration. The pages are short, and the heading is printed on each page, both, I think, essential conditions to the correct entry of facts reported on oft-recurring days. And I have learned almost at all places of inspection that these registers have much facilitated the work of the Circle Registrars.

The District Registrars (Civil Surgeons) have been attentive, as a general rule, to the punctual submission of the monthly statements to my office during the past year. In respect to this matter, only the district returns from Budaon, Bareilly, and Meerut have been received often late, with the inevitable result of delaying the publication of the provincial form in the *Gazette*. Why this has been so I do not know, but it has been a cause of much regret to me. It seems quite impossible to understand why the officials concerned are able to send me the monthly return, as from Futtehpore, Terai, and Shahjehanpore, within 12 days after the completion of the month, while, as from Budaon, Bareilly, and Meerut, they cannot send them until after 25 or 30 days, unless, indeed, the importance of punctuality in this matter is less thought of by the latter. It cannot be from want of asking on my part, as invariably, when the return has been delayed to beyond the fifteenth day, it is asked for by docket.

I think the appointment of a clerk to each District Mortuary Registrar's Office has been a measure most instrumental in leading the Civil Surgeons to undertake this duty of registration willingly, and in some instances zealously; and since, in addition to this advantage, a grant of one rupee per mensem as a contingent allowance for stationery and postage has been granted, I have heard no complaint of inconvenience in regard to actual expenditure incurred in the capacity of Mortuary Registrar.

3. Some Civil Surgeons have, in connection with this work, asked me to furnish them with a map of their district on which the limits of the mortuary circles have been marked. I have a set of such maps, the preparation of which cost me some trouble, but I have no plain spare copies to work upon with a view to supply this reasonable demand of the District Registrars. And the accurate outlining of 35 maps into 870 circles is a work taking time and requiring careful attention. Yet I think it would be right to furnish the maps asked for, and the Superintendent of the Government Press assisting, I can do it readily.

4. The great provincial map showing the geographical position of each circle in a skeleton form was completed during the past year. On this map, which has been prepared in three parts,—of the eastern, western, and central circles of the province respectively—the recorded mortality from cholera, small-pox, and fever will be entered

in each circle separately when the necessary calculations have been completed. When complete it will be submitted to Government.

The map showing the course and prevalence of cholera alone will be submitted with this report.

Total Deaths registered.

5. The total number of deaths registered during 1873 was 704,924 in a population of 30,769,056. The resulting value of life in the province, as computable from these figures, is 43·6 years, or rather more than 43½ years. For the year 1872, the computable value was nearly 44 years, and I have again to report that the numerical registration shows a ratio of mortality to population almost the same as that of England, although undoubtedly the ratio should be higher in this country.

6. However, the result, received as a whole, is not quite unsatisfactory. It can by no means be called absurd. Its comparative approximation to the probable truth is a sufficient evidence that the registration cannot be anything but a careful record of the deaths reported. No person, I believe, of the subordinate establishment employed in this work knows what the ratio of the deaths to population may be expected to be in any country, and I have been careful not to urge the registration up to any fixed standard, or to interfere in any way, excepting to point out, as it occurs, any quite absurdly low ratio of mortality in a circle as shown in the monthly record. The form of docket used is to the effect "that the mortuary returns of the circles noted in the margin for the month of————evidence a neglect of registration in those circles," and requesting "that the attention of the Circle Registrars may be called to the fact with a view to more perfect registration of deaths therein." The rule which guides the sending of a docket to that effect is the happening of a ratio of less than 0·9 per thousand, equalling an annual average of 10·8, and a life-value of 93 years.

7. The annual results show that in the nine districts—Kumaon, Terai, Shahjehanpore, Meerut, Boolundshuhur, Cawnpore, Goruckpore, Benares, and Mirzapore,—with a total population of 8,762,294, the total of deaths registered during 1873 was 247,009, showing an average life-value of 35 years amongst the people of those districts.

8. In the 17 districts—Bijnour, Moradabad, Bareilly, Budaon, Seharunpore, Moozuffernuggur, Allygurh, Etah, Agra, Futtehpore, Jounpore, Humeerpore, Banda, Ghazeepore, Jaloun, Jhansie, and Lullutpore,—with a total population of 13,941,653, the total of deaths registered during the year was 312,404, showing a life-value of 44 years amongst the people of those districts.

9. In the eight districts—Gurhwal, Dehra, Muttra, Mynpoory, Etawah, Allahabad, Bustee, and Azimgurh,—with a total population of 7,146,361, the total of deaths registered during the year was 132,930, showing a life-value of 53 years amongst the people of those districts, which, although quite wide of the truth, cannot be characterized as an absurd result.

10. In the one district—Furruckabad,—with a population of 918,748, the total deaths registered was 12,581, showing a life-value of 73 years amongst the people of that district,—a most absurd result; and this is the more sad, as mortuary registration in Furruckabad has hitherto been fairly well effected, and this is the first occasion of a return to the practice of neglect in regard to this matter in any district since the new method of registration was established. I trust the Government will be able to take such notice of this evident failure in efficiency already somewhat established, as will tend to prevent a further spread of indifference.

11. But for this single untoward result, I should have been able to report that everywhere in the province during the past year the annual results witnessed to an increasing attention to mortuary registration. However, in 1871, eleven districts were noticeable as providing returns which gave absurd results; in 1872 three districts were so noticeable; now, in 1873, the number is reduced to one: unenviable notoriety

for Furruckabad I fear. But the authorities there will, I believe, when made cognizant of it, soon take measures to prevent its continuance.

Class of those who died.

12. The following table shows the ratios of the deaths recorded during the past year as having happened amongst the Hindoos, Mahomedans, and Native Christians :—

Class.	Population in 1872.	Deaths registered.	Deaths in 1,000 living.	Value of life in years.
Hindoos, ...	26,569,068	609,449	22·9	43·6
Mahomedans, ...	4,189,348	95,225	22·7	43·9
Native Christians, ...	10,640	250	23·4	41·4
Total, ...	30,769,056	704,924	22·9	43·6

The results witness to a very careful registration of the class of those who died, and they show that the value of Hindoo and Mahomedan life is almost equal.

The result in regard to Christians is probably due to a fuller record of deaths in regard to those people ; certainly the value of life amongst the people of these provinces is more likely to be 41 years than 43 years.

Age of those who died.

13. In the census of 1872 the ages of the people living were recorded for the first time with the following results :—

Census, 1872.

Age.	Male.	Female.	Total.	Percentage of Total Population
Infants (under 1 year), ...	734,787	679,338	1,414,125	4·6
Children (from 1 to 12), ...	4,850,923	3,970,931	8,821,854	28·6
Adults (12 to 40), ...	8,188,671	7,238,757	15,427,428	50·2
Old people (above 40), ...	2,628,482	2,472,658	5,101,140	16·6
Total, ...	16,402,863	14,361,684	30,764,547*	100·0

I need scarcely say that the facts were not collected in the above form at the census. The table has been compiled from the census age statements in this form for comparison with the facts of the new mortuary age statement No. IV. in the appendix.

The following statement shows the ratios of the deaths recorded during the past year at the different periods of life involved :—

Period of Life.	*Population.*			*Deaths registered.*			*Deaths in 1,000 living*		
	Male.	Female.	Total.	Male.	Female.	Total.	M.	F.	T.
Infants (less than 1 year),	734,787	679,338	1,414,125	76,429	62,951	139,380	104·0	92·6	98·5
Children (1 to 12), ...	4,850,923	3,970,931	8,821,854	106,433	80,961	187,394	21·9	20·4	21·2
Adults (12 to 40), ...	8,188,671	7,238,757	15,427,428	89,610	71,364	160,974	10·9	9·8	10·4
Old people (above 40), ...	2,628,482	2,472,658	5,101,140	121,904	95,272	217,176	46·4	38·5	42·5
Total, ...	16,402,863	14,361,684	30,764,547	394,376	310,548	704,924	24·0	21·6	22·9

* This total is less by 4,509 than the total of population, the details of age of that number of persons having been omitted in the original census returns.

14. Although I dare not venture to compare the results here shown with those of the same class prepared from the English tables, because of the confessed inaccuracy of our registration, yet I may point out that the preceding table appears to show a great mortality in childhood and a short average period of old age in this country. The ratio of deaths in the adult period, 10·4 per thousand, is almost the same as that of England, which is 10·2 for the ages 15 to 45.

Sex of those who died.

15. In 1873 the deaths of males registered were 394,376; the deaths of females, 310,548. The following table will show the ratios in regard to this matter of the past two years:—

Year.	*Population.*			*Deaths registered.*			*Deaths in 1,000 living.*			*Resulting life-value in years.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Average.	Male.	Female.	Average.
1872, ...	16,406,833	14,362,223	30,769,056	393,564	309,648	703,248	23·8	21·6	22·7	42·0	46·3	44·1
* Add estimated increase.	73,831	86,173	160,004									
1873, ...	16,480,664	14,448,396	30,929,060	394,376	310,548	704,924	23·9	21·5	22·7	41·7	46·5	44·1

16. In the preceding table it will be observed that I have added to the known population of 1872, the estimated increase of one year, to find the probable total of the population for 1873.

As the note to the table explains, this increase has been calculated from the known average annual increase for the seven years 1865 to 1871 inclusive. The information will be found in para. 166, page xcv., Vol. I., of the Report on the Census of 1872. The increase for the seven years which elapsed between the dates of the two censuses was 32 per thousand of males and 43 per thousand of females; the yearly average being 4·5 males and 6·0 females.

17. Calculated on the totals thus furnished, it is rather remarkable that the value of life generally, as shown by the figures of the two years, is exactly the same, namely, 44 years. I do not think that much value attaches to this result as a proof of the average life of man in this province, because 44 years is the average length of life in England, where certainly the average of life is greater than in this province.

But I think it proves that the registration in its entirety was at least as well effected in 1873 as in 1872. The difference in the value of male and female life, namely, four years, is the same exactly as the difference amongst the population of England, and this fact affords, I think, a very reliable proof that the sex at death is carefully recorded.

* 4·5 per thousand of males and 6·0 per thousand of females,—being the average annual increase for the seven years 1865 to 1871 inclusive.

CHAPTER II.

OF THE METEOROLOGY OF THE YEAR AND THE GENERAL CONDITION OF THE PEOPLE.

18. The principal facts in regard to the meteorology of the year 1873 appear in the following table in juxtaposition with those of the three previous years:—

Months.	Thermometer.																Hygrometer.				Pluviometer.			
	Mean Maximum in Sun's rays—Degrees.				Mean Minimum on Grass—Degrees.				Mean Maximum in Shade—Degrees.				Mean Minimum in Shade—Degrees.				Mean in Shade—Degrees.				Mean Humidity of air, 100 being saturation.				Rainfall in inches.			
	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.
January, ...	121	119	126	124	36	39	31	39	74	72	74	72	44	46	38	44	61	69	56	58	46	53	73	58	...	...	2·24	0·51
February. ...	128	128	137	130	42	48	38	45	81	79	84	79	60	53	40	51	68	67	62	65	42	50	58	54	...	...	0·75	0·31
March, ...	138	140	154	141	51	50	44	53	87	88	97	87	60	57	56	58	74	77	76	72	36	30	46	47	...	...	0·37	0·71
April, ...	147	151	157	153	60	61	51	60	97	99	101	99	65	67	63	67	82	86	82	83	31	30	44	34	...	...	0·54	...
May, ...	152	151	161	153	68	71	57	66	109	98	107	98	87	74	66	72	93	87	86	85	23	43	44	45	...	...	0·91	1·37
June, ...	147	145	164	157	76	75	68	68	102	95	110	104	80	77	71	80	90	86	90	92	43	65	59	46	7·4	10·6	4·67	1·89
July, ...	138	136	158	143	75	76	64	75	93	88	94	90	77	77	73	77	85	83	83	83	73	83	80	80	14·4	17·3	14·51	14·25
August, ...	136	134	154	143	73	74	70	71	91	87	95	88	77	76	73	77	83	81	84	81	74	82	84	81	12·9	11·0	15·07	11·00
September,...	141	140	155	140	71	73	61	69	90	89	92	88	75	73	66	72	82	81	79	80	72	79	80	79	7·5	10·5	6·30	7·91
October, ...	135	141	148	142	62	58	47	54	91	92	91	87	68	64	56	60	80	78	74	73	53	62	63	57	2·0	...	...	0·41
November,...	132	131	143	131	45	46	37	44	84	84	88	80	51	54	46	51	69	69	67	65	44	59	57	55	...	...	...	0·16
December, ...	124	120	134	125	39	41	35	39	76	74	81	73	40	45	42	45	60	69	61	59	48	65	65	63	...	1·0	0·20	0·61
																					Total, ...	...	...	...	44·2	50·4	46·5	38·68

19. The most important peculiarity in regard to this matter in 1873 was the generally lessened rainfall of the year. This result is principally due, however, to the fact that the rainfall in the hills and in the eastern districts was less than usual; while districts such as Agra and Jhansie, usually noted for their scanty rainfall, received an abundant supply during the past year.

This peculiarity of distribution is well worthy of record, and the following table illustrates it plainly :—

Rainfall in inches in 1873.

	Station.	Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Hills.	Chukrata, ...	...	0·60	2·57	0·49	3·39	1·29	13·62	16·31	4·60	0·57	0·25	1·37	43·99
	Raneekhet, ...	0·58	0·22	0·71	...	2·83	0·57	9·37	6·75	4·80	0·05	0·56	...	27·23
	Average, ...	0·29	0·41	1·64	0·25	3·11	0·93	11·50	11·53	4·70	0·31	0·40	0·68	35·61
Terai.	Dehra, ...	1·08	0·34	1·22	...	1·98	0·61	28·51	21·47	10·56	0·09	0·94	...	86·80
Northern Districts.	Roorkee, ...	1·00	...	0·32	...	1·23	0·19	16·52	10·47	15·61	...	0·08	0·46	45·88
	Meerut, ...	0·40	...	0·90	...	0·98	0·20	11·32	6·25	7·89	0·92	...	0·55	29·41
	Bareilly, ...	0·55	0·10	0·55	...	0·95	0·45	17·80	4·85	9·45	...	...	...	34·70
	Average, ...	0·65	0·03	0·59	...	1·05	0·28	15·21	7·19	10·98	0·31	0·03	0·34	36·66
Central Districts.	Agra, ...	0·04	0·04	0·45	...	1·25	1·89	16·00	17·12	9·58	...	...	...	46·37
	Futtehgurh,... ...	0·65	...	0·20	...	0·27	0·72	12·30	4·45	5·65	...	...	...	24·24
	Lucknow, ...	...	0·30	...	...	0·92	0·51	13·40	8·42	11·13	...	...	...	34·68
	Jhansie, ...	...	...	...	...	...	0·70	11·80	18·90	13·55	...	...	...	44·95
	Average, ...	0·35	0·17	0·33	...	0·59	0·95	13·38	12·22	9·98	...	...	...	37·56
Eastern Districts.	Allahabad, ...	0·14	0·54	0·52	...	...	...	16·48	7·22	7·90	...	...	...	32·80
	Goruckpore, ...	...	...	0·11	...	0·50	8·90	12·30	14·30	2·50	...	0·30	...	38·91
	Benares, ...	...	...	0·22	...	0·41	0·32	19·01	11·17	4·96	...	...	...	36·09
	Average, ...	0·05	0·18	0·42	...	0·31	3·07	10·93	10·90	5·12	...	0·10	...	35·90

20. The averages show that a larger amount of rain fell in the plains than in the hills, which I think is a very unusual circumstance. The fall in the Terai too was fully 20 inches below the usual average. But, in regard to the well-being of the people, the comparative scanty fall in the eastern districts is the most important circumstance, and especially the sudden cessation of rain there early in September. The districts most influenced by this untoward event were Bustee, Azimgurh, Goruckpore, Jounpore, and Mirzapore. The average rainfall of these five districts in 1873 was 29·1 inches, as calculated from the records of the Tuhseeldars (Native Magistrates), and this is very little more than half the usual quantity. In Bustee alone the average was 23·7 only, and here, no doubt, a very considerable amount of the usual food crops of the district must have failed.

21. The resulting distress will be apparent in 1874, and active measures have been taken by the opening of relief works in these districts, and the distribution of alms to those unable to work, to provide the means of life to all who may be threatened with starvation.

22. There can, I think, be no doubt that this scanty rainfall, and consequent threatened distress in the eastern districts, is connected with and due to the same cause as the threatened famine in Sarun, Tirhoot, and Behar, the adjoining country eastward. The scanty rainfall and early cessation of the rains ruined the great autumn rice crop of our eastern districts, as it did in the Bengal country mentioned above ; but inasmuch as our people are less dependent on rice for subsistence, and other kinds of food are plentiful, in Oudh, the Doab, and the Punjab, blessed with a sufficient rainfall, I do not think anything like famine is to be anticipated in the eastern districts.

23. The price of all kinds of food is high, and will, no doubt, so continue, owing to the improved means of carriage. But, taking the North-Western Provinces as a whole, I have no doubt there is food enough for all the inhabitants, with a good margin for exportation. The crops of the past cold season have been very good indeed in most parts of the country which I have visited. No doubt the absence of the usual winter rain in the central and southern districts hindered the gathering of a full outturn there. But in other parts this precarious but most important winter rain fell in good quantity, and I think it is likely, for I have not seen them, that the grain crops of the Upper Doab and Rohilkhund must have satisfied even the cultivators, which is saying a good deal.

24. Concerning the people of our southern districts, especially of Humeerpore and Banda, where I have marched many miles during the past cold season, I should like to say that I have been very much impressed with the evident poverty and misfortune of a very considerable section of the people. I have been told that this condition of miserable poverty is the chronic state of the poor in this southern country. The people themselves say that their hard struggle for life has existed only for the past three years, and is due to a succession of bad crops during that period. However, be the cause what it may, the fact is past dispute that many thousands of persons, and especially many women and children, in Banda and Humeerpore live in a state bordering on starvation.

Of all parts of the province no part merits so much the attention of Government for its improvement, and, if possible, the bettering of the fortunes of the people, as the part indicated.

25. With reference to the people of the province at large, the year 1873 has been a year of high prices ; indeed the cost of the common food articles has been higher than in any year since the threatened famine time of 1869. The facts appear in the following table :—

Common food articles.	*Average quantity in seers sold for one rupee throughout the province.*							
	1870.		1871.		1872.		1873.	
	June.	December.	June.	December.	June.	December.	June.	December.
Wheat, ...	16	20¾	26	21¼	19¼	18	16¾	15½
Barley, ...	22	27	36	28	28⅝	24	22	19¾
Jowar, ...	20¾	29½	26½	23¾	13½	19¾	20¼	21½
Urhur (dal),	15½	16	25¾	20¾	18¼	18½	17¾	15¼
Mustard-oil,	4½	3¾	3½	2¼	2¾	*	*	*

* The new fortnightly return published in the *Gazette* omits the quotation for oil, which is to be regretted, as mustard oil (surson) is one of the staple articles of food amongst the millions of this province.

It will be noticed that the general average price of wheat has been 16 seers for a rupee, but in a country so large as these provinces a general statement of this kind does not illustrate the condition of the people very well; for while the average was 16 seers for the rupee, the price varied very considerably in different parts of the province. Thus, by way of comparison, in June wheat sold at more than 20 seers for the rupee in the northern districts of Seharunpore, Moozuffernuggur, Meerut, and Boolundshuhur, while in the southern and eastern districts in Banda it sold at 12¾, in Azimgurh at 13½, in Goruckpore at 13¼, in Mirzapore at 14 seers. And almost the same prices ruled in December in the districts mentioned. Now an average of 13½ seers for a rupee is very little above famine price, and there can be no doubt that during the past year the poor people of the south and east have been pinched for food, and have consumed much oil-cake, seeds of rushes and grass, and other articles not suitable for the sustenance of man. There is nothing of supposition about this statement, for I have over and over again seen the people collecting the seeds mentioned, have seen them in the houses pounded for food, and no answer has been more common to my inquiry of any half-starved looking individual, as to the food he has consumed during the past 24 hours, than that of "half or a quarter of a seer of khullee" (oil-cake).

26. Although I think a very trying condition of poverty afflicts the poor people generally of the southern country beyond the Jumna, I may mention that in the Raath, Punwaree, Jeitpore, and Muhoba Pergunnahs of Humeerpore, and the Seonda, Badowsa, and Kallinjer Pergunnahs of Banda, the suffering on this account appears greatest. My sojourn in the country indicated was made unpleasant by reason of the persistent clamour for charity in the villages and towns inspected, and at my halting places. I have never been troubled in that way before, although I have inspected the towns and villages of some part of almost every pergunnah in the province.

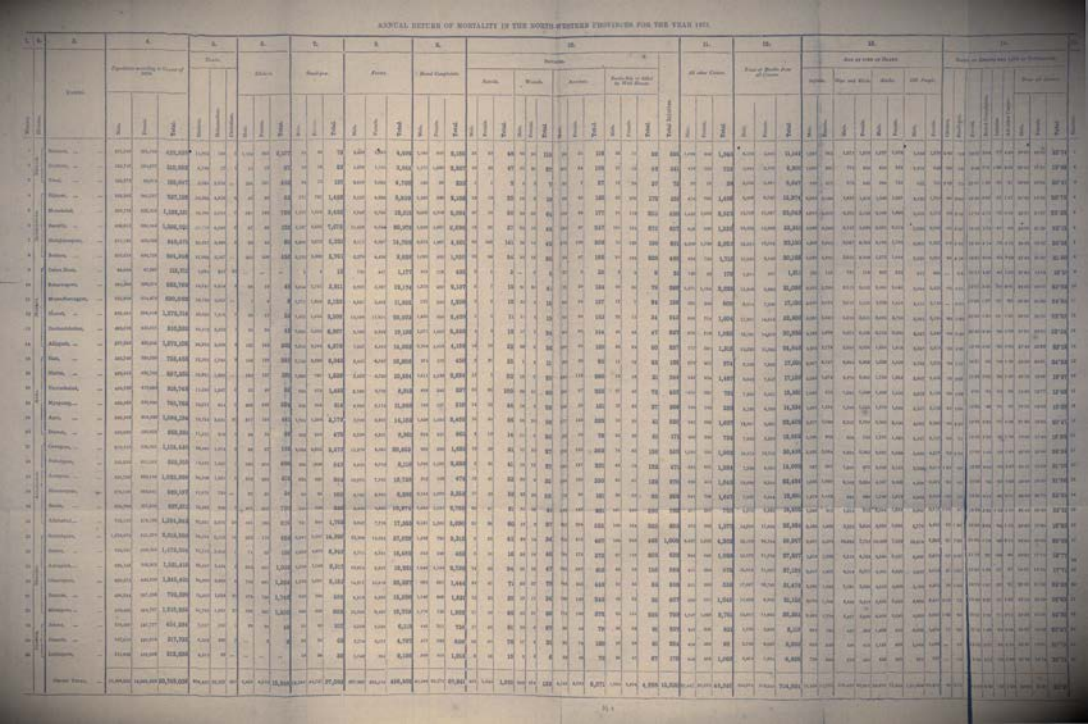
The local native authorities appeared to be much impressed with the poverty-stricken condition of many of the people around them, and at some police stations in the pergunnahs above-mentioned, as the record of deaths under the head "other causes" was unusually great, I enquired as to the kinds of death so recorded. In two cases the answer was "deaths from hunger," &c. I daresay that may be an exaggeration. But it seems very likely, and is I think true, that many deaths have been due lately to the effects of improper food, and a resulting slow process of starvation quickly terminating in disease and death.

27. I know that, in regard to the Banda pergunnahs indicated, it is in contemplation to introduce a system of irrigation by means of water taken from the Cane river at Beroli. I have seen this place, and noticed that a bungalow for the Resident Engineer has been completed there, and that observations in regard to water-supply in the river are being recorded. But nothing of the important work of damming the river has been commenced yet. The banks of the Cane at Beroli are very high, its bed is in great part red sandstone, and I suspect it must be a rushing torrent in the rains. But the Engineers can successfully overcome all difficulties I have no doubt; and this irrigation scheme, if put in hand earnestly, would provide a great amount of relief for the suffering poor of the neighbourhood now, and perhaps result in raising them permanently from their existing state of depression.

If in the same way relief could be given to the poor of Raath and Punwaree of Humeerpore, by water taken from the Dussan, the people of that neighbourhood would have reason to be thankful. Indeed, any measure which has for result the permanent increase of local production will help to provide the necessary remedy, for the country is remote from great marts, and the food produced is not likely to be carried away until it has become very plentiful and cheap.

28. No doubt great good might be done to the people of these parts by the permanent bridging of the Cane at Banda, so that grain might find its way into the country at all times of the year with less of hindrance than now. Banda is in communication with Manickpore, on the Jubbulpore Railway, by a first-class roadway, but the Cane, with its *impetuous current*, bars the further passage of goods westward for many months in the year, and not only cuts off food-supply from the east, but in great measure isolates the cantonment of Nowgong.

10.							14.							15.
ries.							of Deaths per 1,000 of Population.							
Accident.			*Snake-bite or killed by Wild Beasts.*			Total Injuries.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	*From all Causes.*			Number.
Male.	Female.	Total.	Male.	Female.	Total.						Male.	Female.	Total.	
60	56	116	35	17	52	33	10·37	5·04	·77	4·49	26·65	24·69	25·74	1
101	84	185	27	15	42	34	9·23	7·11	1·09	2·36	22·43	17·51	19·98	2
20	7	27	15	22	37	7	25·36	1·26	·39	·21	30·86	29·86	30·41	3
66	69	135	67	105	172	35	13·30	2·85	·47	1·97	21·46	19·85	20·72	4
109	68	177	91	112	203	48	11·15	4·74	·42	2·26	22·97	21·57	22·32	5
150	97	247	121	154	275	60	13·92	1·74	·40	·88	22·85	21·29	22·12	6
179	130	309	74	125	199	69	15·49	4·74	·72	4·13	30·93	30·37	30·68	7
95	87	182	91	134	225	49	10·51	2·06	·53	1·82	21·94	21·21	21·60	8



CHAPTER III.

HISTORY OF MORTALITY AND CHIEF DISEASES.

29. *Table I.—Table of Mortality for the nine years* 1865 *to* 1873:—

Year.	Population.	Deaths.			Deaths in 1,000 living.	Average of life in years.
		Male.	Female.	Total.		
1865, ...	29,405,322	335,359	239,774	575,133	19·5	51
1866, ...	,,	193,144	136,932	330,076	11·2	89
1867, ...	,,	212,461	155,449	367,910	12·5	80
1868, ...	29,588,653	186,312	133,574	319,886	10·8	92
1869, ...	,,	303,921	225,832	529,753	17·9	56
1870, ...	,,	...	...	480,370	16·2	63
1871, ...	,,	332,357	256,293	578,650	19·5	51
1872, ...	30,884,022	393,564	309,684	703,348	22·7	44
1873, ...	30,769,056	394,376	310,548	704,924	22·9	43

The table shows that during the past year the improvement with regard to the numerical registration continued. Many deaths which have happened still remain unregistered, I know; but undoubtedly the business of registration is steadily pursued, and the people are becoming habituated to it.

30. The relative mortality of the three seasons during the past three years appears in the following table:—

Table II.

Year.	Season.			Proportion of 1000.		
	Cold.	Hot.	Rains.			
	January, February, November, December.	*March, April, May, June.*	*July, August, September, October.*	*Season.*		
	Total Deaths.	Total Deaths.	Total Deaths.	Cold.	Hot.	Rains.
1871, ...	196,208	164,751	215,691	342	285	373
1872, ...	210,234	205,107	287,907	299	292	409
1873, ...	204,237	231,997	268,690	290	329	381

And it appears that the mortality of the hot season was excessive during the past year. This was due to the prevalence of small-pox in the hot months, as will appear hereafter. But, notwithstanding this disturbing cause, the deaths of the rainy season still maintained the first place in numerical pre-eminence, a fact due to the great fever mortality of September and October.

31. *Table III.—Deaths from the three principal Zymotic causes according to season:—*

Season.	Fever.			Cholera.			Small-pox.		
	1871.	1872.	1873.	1871.	1872.	1873.	1871.	1872.	1873.
Cold, ...	158,340	168,357	152,657	596	1,526	676	3,521	4,050	11,995
Hot, ...	101,198	118,725	125,670	1,833	30,937	6,124	26,850	18,673	65,887
Rains, ...	162,293	203,354	180,025	1,044	18,102	8,468	8,078	7,350	19,211
Total, ...	421,831	490,436	458,352	3,473	50,565	15,268	38,449	30,073	97,093

32. From the preceding table it would appear that deaths from fever during the past year were more numerous than usual in the hot season, but less numerous in the rainy season; the total mortality from this cause being less by 31,084 than in 1872.

33. Deaths from cholera, although occurring, as usual, most commonly in the hot and rainy seasons, were less numerous by 35,297 than in 1872.

34. Deaths from small-pox occurred to an unusual extent in all seasons, the great prevalence, however, as in all years, occurring in the hot season only. The increase over deaths from the same cause in 1872 was 67,020, and from this cause only the total of deaths reached and slightly over-passed that of 1872.

FEVER.

35. As a matter of course, under our system of registration, the deaths registered during the past year under head of fever greatly exceeded the deaths from all other causes. Of the total ratio of mortality per thousand living, namely, 22·91, 14·89 were registered as having happened from fever. The ratio of mortality from this cause ranges from 9·23 per thousand living in Gurhwal to 25·36 in Terai.

36. The districts in which the mortality from this cause was greatest appear in the following table :—

Table IV.

District.	Population.	Deaths from fever.	Deaths to 1,000 living.
Terai, ...	185,647	4,708	25·36
Meerut, ...	1,273,914	26,073	20·46
Boolundshuhur, ...	936,593	19,132	20·42
Goruckpore, ...	2,019,350	37,028	18·33
Jounpore, ...	1,025,869	18,738	18·26
Ghazeepore, ...	1,345,401	25,287	18·79
Benares, ...	793,699	15,320	19·30
Mirzapore, ...	1,015,293	18,759	18·47
Cawnpore, ...	1,155,439	20,663	17·88
Moozuffernuggur, ...	690,082	11,932	17·29

37. As in all years to which the registration extends, excepting one, Terai heads the list. It is a country of excessive rainfall, and consequent great vegetable growth, and might naturally be expected to head the list.

38. Meerut is second on the list,—last year it was first,—and I think there can be little doubt that the persistent high mortality from fever in that district must be due to excessive moisture, resulting from over-irrigation in a badly drained country. Boolundshuhur, third on the list, is also much irrigated from the canal.

39. The eastern districts, Goruckpore, Jounpore, Ghazeepore, Benares, and Mirzapore, succeed. These districts never have before appeared in the list of districts in which fever greatly prevails, probably because mortuary registration was greatly neglected there in those years. During the past year a more perfect attention has been accorded to this matter in these districts, and if this is continued, I think it likely that the fever mortality of the eastern districts will be found to be as great as that of the much complained of irrigated districts of the west. I have in a previous report (1871) expressed an opinion to this effect; indeed, when I came to know the eastern country well, I could not but arrive at the opinion that fever disease was likely to be at least as prevalent there as in any other part of the province, excepting the Terai. The mortuary statistics as they improve are upholding this opinion.

40. Moozuffernuggur is low on the list as compared with its position in former years. For the past four years the ratios in this district have been 24·70, 23·0, 19·59, and 17·29, showing a gradual decline in the deaths from this cause, which is very satisfactory.

This may be due to the fact that the people of this district are becoming acclimatized to the change resulting from canal irrigation, and I think that is likely to be the result in all canal-irrigated districts, after the lapse of a certain period of years. It may be due, I grant, to a less careful registration of deaths, but that is a dread suspicion which must always trouble the enquirer in any direction, so long as mortuary registration is effected on the existing voluntary and uncertain system.

41. I am as certain as I can be of anything not capable of proof, that the registration will eventually be perfected to the utmost extent possible amongst an ignorant people. Until that is effected we must remain satisfied with very general conclusions, and those warily accepted, because of unbelief in the correctness of the registration, even of the number of persons who have died in any year.

CHOLERA.

42. During 1873 cholera prevailed as an epidemic only in the northernmost corner of the province, namely, in Kumaon.

Deaths from this cause occurred in every district of the province, excepting Dehra Doon and Lullutpore. This is the case in all years, and there can be no doubt that cholera is endemic in these provinces; more so in the eastern districts which adjoin Bengal, and less so in the northern and western districts, far distant from that province. But I believe that hardly a year passes without some cases of this disease coming to the notice of every Civil Surgeon in the province. And I think the mortuary record in regard to this matter represents very fairly the comparative prevalence of the disease in each district.

Table V.—Annual Mortality from Cholera in the N.-W. Provinces for the nine years 1865 *to* 1873.

Population.	Year.	Deaths from Cholera registered.	Ratio to 1,000 of population.
29,405,322 ...	1865, ...	76,322	2·58
„ ...	1866, ...	8,175	0·27
„ ...	1867, ...	57,837	1·95
29,588,653 ...	1868, ...	20,680	0·61
„ ...	1869, ...	90,770	3·06
„ ...	1870, ...	13,123	0·44
„ ...	1871, ...	3,473	0·11
30,884,022 ...	1872, ...	50,565	1·64
30,769,056 ...	1873, ...	15,268	0·49

Table VI.—Registered Mortality from Cholera in all Districts of the N.-W. Provinces for the nine years* 1865 *to* 1873.

No.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.
1	Kumaon, ...	...	...	15	...	1	...	...	...	21
2	Gurhwal, ...	...	...	4	...	...	...	...	...	...
3	Terai, ...	...	...	6	...	...	...	...	4	5
4	Bijnour, ...	1	1	8	...	1	...	1	2	1
5	Moradabad, ...	10	3	43	1	2	2	2	11	7
6	Bareilly, ...	49	4	78	5	9	2	1	15	1
7	Shahjehanpore, ...	31	1	78	...	3	...	1	44	1
8	Budaon, ...	6	1	8	1	11	1	1	9	5
9	Dehra Doon, ...	...	...	9	...	...	...	...	3	...
10	Seharunpore, ...	3	1	9	1	2	1	2	14	...
11	Moozuffernuggur, ...	1	2	21	2	2	2	1	...	...
12	Meerut, ...	9	7	41	3	6	1	1	5	1
13	Boolundshuhur, ...	2	1	7	1	2	1	...	4	...
14	Allygurh, ...	2	1	11	1	4	1	1	8	4
15	Etah, ...	2	1	12	1	2	1	...	3	2
16	Muttra, ...	1	1	8	1	11	1	...	4	3
17	Furruckabad, ...	18	2	6	1	3	...	...	25	1
18	Mynpoory, ...	6	1	7	1	3	...	...	4	5
19	Agra, ...	3	1	15	1	20	1	1	5	4
20	Etawah, ...	35	1	1	...	4	...	...	15	...
21	Cawnpore, ...	16	2	18	1	28	...	2	16	1
22	Futtehpore, ...	29	2	7	1	10	...	...	5	7
23	Jounpore, ...	14	3	2	9	29	7	4	88	6
24	Humeerpore, ...	88	...	2	...	21	...	...	1	1
25	Banda, ...	27	1	25	...	14	1	...	2	8
26	Allahabad, ...	42	3	5	6	29	2	2	36	9
27	Goruckpore, ...	57	3	50	40	86	27	1	30	4
28	Bustee, ...	13	1	51	5	43	50	...	95	1
29	Azimgurh, ...	24	3	9	14	88	13	2	26	10
30	Ghazeepore, ...	15	11	13	33	108	4	3	6	13
31	Benares, ...	16	15	6	12	35	4	7	14	17
32	Mirzapore, ...	23	7	4	21	48	9	1	16	13
33	Jaloun, ...	102	1	...	...	26	...	...	1	...
34	Jhansie, ...	99	...	...	...	18	...	...	...	...
35	Lullutpore, ...	7	...	...	...	27	...	...	...	...

* In this table the entries of deaths stand for hundreds, thus 15 stands for 1,500.

43. The table shows that in Kumaon cholera had not been epidemic since 1867. In 1872 cholera was epidemic, as the table shows, in the easternmost districts, where the disease prevailed in March and April; in the central districts, where it prevailed from May to September; and lastly in the northern districts, where it prevailed in October and November. During the month of December a few cases of the disease occurred in Moradabad and Terai, and this continued throughout the cold season, which, so far as the mortuary statistics teach, is a very unusual circumstance. For, as a rule, the returns for the months of December, January, and February are peculiar, as showing no deaths from cholera, or only a very few widely scattered deaths from that cause. Slowly the disease spread up into Kumaon, and became epidemic there in the months from February to July; and so it happened that whilst the remainder of the province in all its extent from east to west was almost free from cholera, the disease was prevalent and very fatal in Kumaon and Terai.

44. This peculiar and localized epidemic prevalence would appear to have been a continuance northward of the epidemic of 1872. I do not know whether the disease continued northwards across the snowy range, but it did not prevail in Gurhwal. Indeed, the epidemic prevalence was most marked in the Terai circles of Kumaon which border the hills and in the outer and lower ranges of mountains. Yet it did extend to Bhagesur and in the direction of one of the passes across the snowy range. The map which accompanies this report shows very plainly the geographical position of the circles in which the disease prevailed, and the following table illustrates the time of the year (or season) in which cholera appeared in all parts of the province:—

Table VII.—Monthly Deaths from Cholera in 1873.

Number.	District.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1	Kumaon, ...	61	215	269	575	576	340	62	3	5	1	...	...	2,107
2	Gurhwal, ...	3	2	3	6	7	6	...	...	...	...	...	...	27
3	Terai, ...	...	22	55	165	42	17	4	35	109	6	...	...	455
4	Bijnour, ...	5	6	9	8	6	5	3	2	5	5	4	5	63
5	Moradabad, ...	3	4	21	11	19	18	7	169	339	106	5	1	703
6	Bareilly, ...	3	6	11	21	13	20	12	6	9	10	11	1	123
7	Shahjehanpore, ...	1	...	4	...	7	...	...	1	2	51	14	...	80
8	Budaon, ...	2	9	4	9	3	6	4	62	233	122	2	2	458
9	Dehra Doon. ...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Seharunpore, ...	1	2	2	8	5	6	1	4	9	1	3	3	45
11	Moozuffernuggur, ...	...	...	2	...	1	...	...	...	2	...	...	...	5
12	Meerut, ...	1	...	1	3	6	19	...	2	20	...	1	...	53
13	Boolundshuhur, ...	1	...	3	6	2	4	3	11	9	2	...	2	43
14	Allygurh, ...	13	1	11	8	17	59	25	57	113	33	9	4	350
15	Etah, ...	4	4	3	7	10	22	8	40	53	80	14	...	245
16	Muttra. ...	4	3	4	9	12	89	65	48	68	10	6	3	321
17	Furruckabad, ...	1	1	4	1	5	8	7	10	11	8	1	6	63
18	Mynpoory, ...	...	...	...	2	3	74	101	158	180	5	1	...	524
19	Agra, ...	...	1	2	6	12	86	71	81	160	18	3	1	441
20	Etawah, ...	...	1	...	1	3	24	1	7	8	1	...	...	46
21	Cawnpore, ...	...	4	...	3	7	2	2	34	65	21	9	2	149
22	Futtehpore, ...	...	...	...	1	18	122	112	281	114	18	...	...	666
23	Jounpore, ...	...	7	25	70	67	174	126	59	71	15	...	...	615
24	Humeerpore, ...	...	...	...	...	2	3	...	12	23	13	1	1	54
25	Banda, ...	...	...	...	5	69	249	106	139	102	19	1	...	690
26	Allahabad, ...	1	5	27	43	92	389	122	58	102	37	...	...	876
27	Goruckpore, ...	...	...	2	3	2	5	10	81	165	106	49	6	429
28	Bustee, ...	3	...	1	8	11	38	30	12	3	...	...	...	106
29	Azimgurh, ...	...	9	4	11	18	85	120	444	289	40	5	9	1,035
30	Ghazeepore, ...	...	4	25	81	148	257	325	196	201	63	3	1	1,304
31	Benares, ...	8	26	21	96	222	367	271	389	223	94	19	6	1,742
32	Mirzapore, ...	...	11	52	136	121	233	201	138	336	68	3	1	1,300
33	Jaloun, ...	...	...	...	2	...	...	...	...	85	11	...	...	48
34	Jhansie, ...	...	...	...	...	...	...	...	2	...	...	...	...	2
35	Lullutpore, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total, ...	115	343	565	1,305	1,526	2,728	1,802	2,601	3,101	964	164	54	15,268

SMALL-POX.

45. In the year 1873 small-pox was widely prevalent during the months of March, April, May, and June. The following table shows where the disease prevailed and the prevalence of the past nine years:—

Table VIII.—Registered Mortality from Small-pox in all Districts for the nine years* 1865 *to* 1873.

No.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.
1	Kumaon, ...	...	...	...	...	...	1	...	...	1
2	Gurhwal, ...	...	...	...	...	...	...	...	1	...
3	Terai, ...	...	2	3	...	...	...	2	...	1
4	Bijnour, ...	1	39	45	2	...	5	69	38	15
5	Moradabad, ...	19	40	60	8	7	25	50	13	35
6	Bareilly, ...	52	127	43	13	6	19	43	29	77
7	Shahjehanpore, ...	86	113	11	2	67	20	35	31	52
8	Budaon, ...	28	20	34	4	5	7	12	13	58
9	Dehra Doon, ...	...	...	1	...	...	...	...	1	...
10	Seharunpore, ...	24	103	11	32	11	20	44	53	38
11	Moozuffernuggur, ...	...	67	10	23	11	30	43	11	31
12	Meerut, ...	72	37	9	9	50	22	13	8	25
13	Boolundshuhur, ...	57	199	24	13	63	16	4	10	70
14	Allygurh, ...	79	10	4	19	64	5	7	6	47
15	Etah, ...	52	1	5	11	35	1	3	3	50
16	Muttra, ...	100	1	1	10	60	4	3	5	18
17	Furruckabad, ...	67	4	4	7	39	...	3	1	15
18	Mynpoory, ...	24	4	13	9	42	1	1	...	8
19	Agra, ...	67	1	5	10	78	2	3	4	32
20	Etawah, ...	13	1	2	2	36	2	3	1	5
21	Cawnpore, ...	75	3	13	4	63	3	12	2	55
22	Futtehpore, ...	18	4	7	5	61	...	1	2	5
23	Jounpore, ...	8	5	13	11	18	5	1	2	10
24	Humeerpore, ...	30	1	1	13	41	3	3	4	1
25	Banda, ...	25	4	8	12	70	1	2	3	3
26	Allahabad, ...	6	6	7	8	14	3	2	3	18
27	Goruckpore, ...	7	11	25	3	4	2	2	11	149
28	Bustee, ...	27	11	17	12	4	5	8	33	89
29	Azimgurh, ...	40	6	5	20	12	18	3	3	23
30	Ghazeepore,...	25	9	6	17	12	11	3	2	22
31	Benares, ...	5	2	4	8	12	2	2	1	6
32	Mirzapore, ...	23	6	3	8	23	3	3	4	9
33	Jaloun, ...	2	1	...	2	15	1	1	...	1
34	Jhansie, ...	8	1	...	1	32	...	1	1	1
35	Lullutpore, ...	9	5	2	1	10	...	...	3	...

* In this table the entries of deaths stand for hundreds.

46. The table shows that small-pox prevailed in 1873 more widely and generally than perhaps in any year since mortuary registration was commenced.

47. As in all years since a record of deaths was kept, the disease in its fatal form was almost absent in 1873 from Kumaon, Gurhwal, Terai, and Dehra Doon. In Kumaon 79 deaths, in Gurhwal 27 deaths, in the Terai 137 deaths, and in Dehra Doon 5 deaths were recorded from this cause. The comparative immunity of the districts mentioned from the ravages of this loathsome and fatal disease is doubtless due to the labors of the officers of the Vaccination Department, who have effectually protected the people there. The population of the three districts is 1,044,528, or upwards of a million. The population of the Moradabad District, which adjoins this protected country, is but little more numerous; and during the past nine years, according to our imperfect records, which err only on the side of neglected registration, 28,648 persons have died of small-pox there, against 1,556 in the protected country mentioned. In Bareilly, with its one and a half million souls, the deaths from this cause during the past nine years have been more than 41,000.

No doubt the great advantage of vaccination is, that although it may not prevent the happening of occasional fatal cases, it does prevent most effectually a sudden epidemic outbreak of small-pox, such, for example, as occurred in Goruckpore during the past year, causing the death of nearly 15,000 persons.

Before vaccination was effectually introduced into the now protected country mentioned above, frequent and very fatal epidemics of small-pox happened there; now nothing of that sort happens,—cases happen, and children die here and there,—children, in many instances, of parents who have recently come from the unprotected country. But the disease does not spread, and thousands of children in the protected country, who would of a certainty, but for this protection, be dead, are now growing up to be more or less useful members of society.

48. I do not think it would be so easy to give protection from epidemic small-pox to the people of the plains as it has been to the people of the hills and their immediate neighbourhood. But it could be done gradually under a system of well concentrated effort. For such purpose I know no part of the province more suitable or more likely to benefit than Rohilkhund. It adjoins the protected country, and so is best placed to receive plentiful supplies of vaccine lymph; its people are perhaps the best and most manly of the province; and, as things now are, small-pox appears to have made a home there, and year after year demands its thousands of victims. From the table it may be learnt that in no part of the province is there a higher fixed rate of mortality from small-pox.

Bowel Complaints.

49. I have not in previous reports made separate mention of this cause of death, because of the uncertainty of the record; but as my experience of registration and its results increases, I notice a repeated preponderance of deaths from this cause in certain districts, and I think the facts should receive notice.

50. During the past year the mortality from this cause in the different districts ranged between 7·11 per thousand of the population in Gurhwal, and 0·31 in Bustee. I understand that under this head are registered deaths from diarrhœa and dysentery; and although deaths from other diseases of the abdominal organs are doubtless entered under this head, yet I believe in greatest part the figures record deaths from those two causes. Doubtless many, perhaps the majority, of the deaths from these diseases, which are generally accompanied by febrile excitement, are recorded under the head of fever, as, for example, in the district mentioned, Bustee, with its ratio of 0·31, and where only 463 deaths from bowel complaints were registered during the past year in a population of 1,472,994.

51. The following table shows the districts in which the recorded mortality from this cause has been highest during the past three years :—

Table IX.—Mortality from Bowel Complaints.

District.	1871.	1872.	1873.
	Ratio to 1,000 living.	Ratio to 1,000 living.	Ratio to 1,000 living.
Gurhwal, ...	8·34	8·31	7·11
Humeerpore, ...	6·10	7·10	6 71
Kumaon, ...	3·39	4·91	5·05
Moradabad, ...	3·39	5·40	4 74
Shahjehanpore, ...	3·99	6·85	4·74
Futtehpore, ...	4·13	4·81	4·04
Lullutpore, ...	2·43	4·39	4·76
Dehra Doon, ...	2·55	2·66	4·27
Jhansie,...	2·81	2·75	2·51

I think it is rather remarkable that the nine districts in the table should have continued for three years to show the highest ratios of mortality from this cause, unless it is a fact that bowel disease is more common amongst their people than amongst the inhabitants of the remainder of the province.

52. It seems not unlikely that the residents of hill country, such as Gurhwal and Kumaon, should suffer in this way. Humeerpore, Jhansie, and Lullutpore also are districts containing much of hill and stone, with a water-supply of poor quality ; and in other districts of the table it would not be difficult to point to causes likely to encourage bowel disease. But the record on this subject is too imperfect, in regard to the province as a whole, to warrant any settled conclusion.

As the record of mortality improves, the truth may come to be known, and I mention the subject only as a commencement of inquiry in the direction indicated.

CHAPTER IV.

INSPECTIONS OF SANITARY COMMISSIONER.

53. During the month of November last, I was engaged in assisting at a well-organized endeavour to ensure a condition of good health amongst the troops and people assembled at the Agra Durbar. As is well-known, owing to the then threatening famine in Bengal, the assembly of persons at the Durbar was greatly less than the numbers which were expected to arrive, and for which arrangements had been made.

54. In regard to the measures taken for the prevention of disease, I should say that our efforts were principally directed to the prevention of overcrowding, the insurance of cleanliness, and the provision of a good water-supply. To effect so much, the sites of the numerous camps were made to include a large surface well marked out and defined. Fenced latrines on the trench system were provided in the rear of every camp, and shallow pits prepared for the receival of sweepings. Every camp site was made to include one or more wells for the supply of drinking water. The wells were marked by small flags; any wells on the site which contained water unfit for consumption were closed up. The selected wells were cleaned out by draining them dry, and then permitting clean water to collect in them. In addition to the great requirements of space, cleanliness, and good water, arrangements were made to provide for the care and treatment of any persons who might be taken ill,—temporary hospital buildings being erected. The camp sites were levelled, surrounding vegetation removed, and altogether a very considerable amount of well-ordered preparation was effected, such indeed as would, I think, have sufficed for the comfort and well-being of the numerous assemblies which were expected.

55. This trouble of preparation, and its reality, was due in greatest measure to the earnest personal attention given to the matter by Mr. Simson, the Magistrate and Collector, who laboured most thoroughly and willingly to give effect to the suggestions of the Medical and Sanitary Officers present. Major Dennehy, who was in charge of the camps, and conducted the necessary Police arrangements, also gave a most willing and ceaseless attention to this good work, and was so desirous to make the sanitary measures resolved upon thoroughly effective in their working, that soon the whole Police force employed, had well-defined duties of sanitary inspection, management, and report, required of it.

56. Thus ably helped and encouraged, I need scarcely say my duties as Sanitary Officer were a light burden, and that I looked forward very hopefully to a successful gathering and dispersion of the considerable population at first expected. I have had some experience of the sanitary management of crowded gatherings of the people at fairs, and on some other occasions, but I can safely say that I have not yet seen anything so thoroughly real and comprehensive in regard to this matter as the work done at Agra on the occasion of which I speak.

57. The best camping grounds were, as a *matter of* course, given to the important European officials assembled, and to the European and Native Troops. In regard to the latter, their sanitary management was left in the hands of the Military Medical authorities, controlled by Dr. Smith, Deputy Surgeon-General, who appointed Dr. Godwin of the Artillery to be Sanitary Officer of the Military and Viceroy's camps.

58. I know from frequent observation that the management there was thoroughly efficient: Dr. Godwin always anxious and earnest about his work on this special occasion, as I understood, from universal testimony, on all occasions of professional requirement or opportunity. The sanitary management of the camps of Native magnates and others fell more especially to my own lot; but Dr. Smith, who kindly consented to join with me in the general management, gave great help by advice and inspection in this direction too.

59. It was especially in the native camps that a neglect of sanitary management was to be feared, and great care had been taken by arranging these camp sites in line along the Gwalior road, well outside the municipal boundary, to bring them properly under observation and management. Tents were to have been pitched in regular order, and cleanliness thoroughly maintained: a line of Police sentries, enforcing the use of the fenced trenches, provided. However, it was in this direction that the arrangements proved to be greater than the necessity required. The expected Rajahs and native gentlemen, acting in accordance with the suggestions of Government, arrived with a scanty retinue, or in some instances did not come at all. The following, of such as came, conformed readily to the rules enforced, and in my daily inspections of the camp sites, complaint was seldom necessitated, and never left unremedied.

The temporary hospitals remained untenanted throughout the Durbar time. No person died in any camp, and the daily reports received from each camp showed that ague, rheumatism, and accidents were the only causes of illness worthy of mention. At one time a case of cholera was reported in one of the regimental bazars, which on investigation proved to be a case of fever attended with vomiting.

60. After the dispersion of the Agra camps, I proceeded to inspect the towns of the Allahabad Division, on which I very much desired to report, as of all the towns of the province, those of the Cawnpore, Humeerpore, Banda, Futtehpore, and Allahabad districts remained to be inspected. I can now say that I have inspected and reported on every town in the province with a population of more than 5,000; have marched in every pergunnah; have seen and inspected many hundreds of smaller towns and villages; and have a fairly comprehensive knowledge of the people everywhere in the province.

61. Experience of this kind is, I think, absolutely essential to the efficiency or usefulness of an officer with the peculiar functions of a Sanitary Commissioner. I think that wanting an intimate knowledge of the condition, mode of life, circumstances, character, feelings, and beliefs of the people, it is quite impossible to arrive at just conclusions concerning the most hopeful methods of improving their sanitary state, or of putting more of comfort into their lives, which, as I understand it, is the ultimate aim and result of all good government.

Sanitation, however, I know, is not permitted to include a definition so wide, but is commonly restricted to questions affecting those now living, in regard to the things which immediately surround them, and especially the three things—air, and water, and food—on which they live.

And there is no doubt that the comfort of the lives influenced is in direct ratio to the purity and goodness of these three essentials of life consumed by any people. To judge correctly concerning the possible improvement in these essentials of life, it is necessary to be well acquainted with the existing conditions; and if my long journeyings of the past six years had taught me only so much, I should count it labour well expended.

62. It has been recently intimated to me that I should not in future include in this chapter a detailed account of the towns inspected; but I trust I may be permitted to follow the usual course in respect to this matter for this last year, so as to complete the series of inspection reports of all the towns of the province on one plan. In this way a complete standard for future reference will be provided in a very convenient form.

In future years I will conform closely to the recent orders, and include in this chapter only a concise statement of inspections made, and of general results.

THE ALLAHABAD DIVISION.

63. The Allahabad Division includes the country of the lower part of the Doab as its central portion, a considerable and most important stretch of country south of the Jumna as its southern portion, and a more populous but less extensive domain north of the Ganges as its northern portion. The division has considerable length from east to west, but comparatively little breadth from north to south; and viewed as a whole it presents a rather strange agglomeration of districts, including Humeerpore and Banda, country of Bundelkhund in most things, to the south; Cawnpore, Futtehpore, and Allahabad, country of Doab, in the midst; and Jounpore, country of the east, to the north; and being so constituted, naturally its varying portions differ greatly in respect to population, fertility, climate, and other peculiarities by which the comparative importance of countries may be measured. Thus, in Humeerpore and Banda, southern districts, the population is in the ratio of 236 persons to each square mile; in the Doab districts 474; in the Jounpore portion of the east 659. In the southern districts 53·2 per cent. of the total area-paying revenue is cultivated; in the Doab districts 57·9; in the east district 60·9. These figures do not witness to any such great difference of cultivated area as might be expected from the great difference of population; and, again, the agricultural population in the southern districts is 47·8 per cent. of the total population; in the Doab districts 48·8; in the eastern district 68·3. It follows that the cultivation of any given area of Banda or Humeerpore is effected by half the number of persons required to cultivate an equal area in the Doab districts, and that so effected, the result suffices to maintain twice as many persons in the latter country as in the former. In regard to Jounpore the difference is greater.

64. And, no doubt, those acquainted, by actual observation, with the countries in question will not be surprised at the results indicated above.

For, although the area of land called cultivated in Humeerpore and Banda is extensive nearly in the usual proportion, often the cultivation is seen to be poor, the crops thin, and much of the land too is suitable for only one crop in the year. The difference in the amount of the land revenue and cesses collected shows unmistakably the poorness of the soil, and the comparatively lessened value and quantity of its produce in the country south of the Jumna. For here the revenue averages only Rs. 505 per square mile, whilst in the Doab districts it is Rs. 946, and in Jounpore Rs. 879.

The southern parts of Humeerpore and Banda are especially unfertile, for it is a country where stone often crops up to the surface, and where there are many hills in low ranges, or detached hillocks of great boulders piled together: boulders of flattened surface and rounded edges, piled in gigantic heaps, taking exactly the appearance of ruins of great works of ancient days,—temples or palaces,—and often crowned by vast tottering stones on edge, which add greatly to their general appearance of artificial origin. I suppose the forces resulting from alternating rains and heat and cold have served to split the rocks into partly shaped stones. But however formed, there they are, pretty thickly scattered, and lending a charm to the country as a whole, of which no other part of the province can boast.

The Banda hill, as it is called, which fills the background, and almost forms part of the Banda town, is a notable instance of these hills of piled boulders; but I know of many much more beautiful than it scattered all through the country, even from Jhansie in the west, to Russin and Kirwee in the east.

65. Of course a stone country like this, with a generally light-coloured soil of, in most part, disintegrated rock, is not favorable to cultivation, though here and there patches, and sometimes even tracks of black soil, intervene, where the rocks, from which I suppose it has been made, are of a dark-red colour. But taken as a whole, it is a country of comparative barrenness, and its people are very poor.

I have called attention to the poverty of the people here in my remarks on the condition of the people generally during the past year; but I am sure I cannot dwell too often, or too forcibly, on this subject, for I believe there is no other part of this province which more merits the attention of Government, no people which more require consideration in regard to measures of improvement or assistance, than these of the southern country which borders the independent Native States.

66. The Doab country of this division is on the contrary a favored land, and especially Cawnpore, the greater portion of which is irrigated from the Ganges Canal. Last year I did describe pretty fully the importance and recent improvements of the Doab country, and I do not propose to continue that subject now. But I may add that the Cawnpore, Futtehpore, and Allahabad Districts of the Allahabad Division, with their revenue payment of Rs. 946 per square mile, form the most valuable portion of the North-Western Provinces. Even the much irrigated and otherwise greatly considered country of Seharunpore, Moozuffernuggur, and Meerut pays only Rs. 900, and the land of Ghazeepore, which I think to be the most fertile in the province, only Rs. 766. In regard to the last, however, I suppose the lessened payment is due in greatest measure to the permanent settlement of the country indicated.

Moradabad, the best part of Rohilkhund, pays only Rs. 646, while the Cawnpore District pays Rs. 1,006 per square mile of area paying Government revenue, and stands first in respect to this matter of all districts.

67. Important towns are not numerous in the Allahabad Division.

In Cawnpore there are five,—Cawnpore city, Bilhour, Bithoor, Akberpore, and Suchendee.

In Humeerpore seven,—Raath, Muhoba, Koolpahar, Mowdha, Jeitpore, Somerpore, and Humeerpore.

In Futtehpore three,—Futtehpore, Khujwa, and Bindkee.

In Banda four,—Banda city, Kirwee, Muttound, and Rajapore.

In Allahabad two,—Allahabad city and Mow Aymah.

In Jounpore two,—Jounpore city and Muchlee Shuhur.

68. The total of the population of these towns is 393,720, the total population of the division being 5,468,955. It follows that 5,075,235 reside in villages and smaller towns, numbering 13,551, of which 6,083 contain each less than 200 persons, 6,500 from 200 to 1,000 persons, 749 from 1,000 to 2,000 persons, 172 from 2,000 to 3,000, and 47 from 3,000 to 4,000.

From this statement it will be seen that the great mass of the people live in the villages. The villages of the Allahabad Division, of which I have seen a great number during the past year, consist of the usual collections of ill-arranged mud huts, generally surrounding or adjoining the house of the zemindar or his agent. The huts are about as miserable places of residence for human beings as could be provided. As in all parts of the province, they are built and repaired by those who live in them. Ill-shaped, unplastered mud walls enclosing one little room, the floor of mud in no way raised, the roof a thin grass thatch, or covering of poor tiles, form the house of the millions of poor people in this country. Inside there is positively nothing by way of furniture; certainly nothing to tempt the poorest thief. The square opening, serving for doorway and window together, wants no door.

The hut walls of some of the poorer classes are smeared over with clay water, and a few queer figures or prints of the outspread hand adorn the margins of the doorway. This gives them a more finished and comfortable appearance, and often in huts of this character, the word Rám, meaning God, is traced in many places in white or red upon the walls, with a hope, no doubt, that the dwellers may obtain the protection of the Almighty from this act of faith and remembrance. In many villages of the

Allahabad Division, especially in the Lower Doab, this perhaps better style of house is more common than usual; generally here too the sites of the villages are raised, and have been well chosen.

69. In regard to cleanliness, I have certainly noticed during the past year a more general observance of the rule which requires that manure should be stored outside the village.

I can only of course speak of what I have seen, and doubtless it is possible that in the majority of the villages this rule is as much neglected as ever it was. But I have certainly noticed an improvement in this matter, especially in the Allahabad District, in some parts of which I have reason to think that Mr. Knox has recently much interested himself about the condition of the village and town sites and their improvement. I know it is a very difficult matter to effect any real improvement in the sanitary aspect of a village, but I know it can be done with a very fair amount of success, and without oppression or resulting dissatisfaction. Indeed, I think the inhabitants of a comparatively well-kept village are inclined to feel and express a pride in its more cheerful and cleanly appearance. I am certain the power to bring about a change in respect to this important matter lies in the hands of the zemindars or their agents. The village sites belong to them; at least it is certain that no person can take up his abode or build a house in a village without the 'zemindar's permission. Yet, as the Government require no revenue from the land of a village site, I am inclined to think it is in a position to require something of attention in regard to sanitary improvements in it from the zemindar.

70. One great and, I think, generally acceptable improvement would be the establishment of a custom of planting trees in and around the site. This is not so easy as at first sight might appear, because of the many hungry animals the villagers keep; but every villager knows how to protect a tree successfully against the attack of animals, excepting perhaps the attack of camels, but that only because of the unjust behaviour and violence of the owners or drivers of the many camels which accompany, as beasts of burden, the camps of inspecting officials, the camps of troops, or which traverse the country under the orders of the officers of the Commissariat Department.

These drivers sometimes feed their camels on the village trees, the small branches of which they lop off to a lamentable extent, so that I have seen fine peepul trees in the midst of villages cut down to a skeleton of trunk and branches. The drivers dare not do this, but for the influence of the powerful name of their employers, to which the ignorant villagers bow without complaint.

71. I think the Government might without difficulty afford the same protection and attention to the trees of village sites as it affords to the trees of highways, not one of which would have escaped mutilation, if not destruction, from the camel-drivers, but for the belief that they are Government property. I often hear or read complaints of the unwooded state of the country now; indeed, in one noticeable instance I did read as the official report of an officer of long service in India, that the country was denuded of trees from Patna to Delhi. I think this opinion must have been formed as the result of a knowledge of the country as seen, without much attention, from the line of railway only; certainly, as applied to the country at large, it is erroneous. For I should say that as a country, the surface of which is continuously and carefully cultivated, the North-Western Provinces is a wonderful land of groves—groves numerous beyond calculation,—always beautiful, and the great redeeming feature of the otherwise monotonous landscape.

72. However, if more trees are wanted, say for such great purpose as to attract a more regular and plentiful rainfall, they cannot be better placed, both in regard to the good they will do to the people now alive, and to their pretty uniform scattering throughout the land, than in and about the village sites. Already trees are pretty

generally grown amongst and around the houses in some parts of the better managed villages, but much remains to be done to give to the residents, even there, the full advantage of the shade in summer, and the warmth in winter, which a well-organized and efficient system of tree-planting in village sites would provide. Villages being collections of absolutely bare huts are uncommon, but may be found, and so found their appearance is desolate in the extreme. I think that the District Officers, who do very generally desire with great earnestness to comfort the lives of the millions whose faithful labours in principal measure support the empire, would find in this matter a favorable opportunity of doing something acceptable in that direction. The people could have no doubt about the motive, always provided that the person who planted the tree, and saved it through the struggling time of youth, should be its owner absolutely, subject to the condition that he cannot cut it down until he has a young tree growing to take its place.

73. The most appropriate and useful places to be thus improved are the margins of water-holes, waste places amidst the huts, and bare spaces around them; and the most acceptable trees are peepuls for villages of Hindoos, and tamarinds or neems for villages of Mahomedans.

There is one element of success in such an undertaking which must be a cause of expenditure, but I think a gift of the trees, say as one-year seedlings carefully grown in good soil, is essential to its success; and I should suppose the district committees who regulate the expenditure of the great 10 per cent. cess, might find the means for the establishment of well-placed nurseries, from which the people might receive their seedlings for the asking.

74. The towns of the Jounpore district have been described in a previous report, having been inspected with the towns of the Benares Division some time ago. And as my employment during the month of November at the Agra Durbar did not leave me time to inspect all the towns of the Allahabad Division in one marching season, I determined to devote my attention to the towns of Cawnpore, Humeerpore, Banda, Futtehpore, and Allahabad, upon which I will now proceed to report.

CAWNPORE DISTRICT.

75. The towns of more than 5,000 inhabitants in the Cawnpore District are :—

		Population.
1.	Cawnpore City, ...	122,770
2.	Bithoor, ...	8,322
3.	Bilhour, ...	5,954
4.	Akberpore, ...	5,497
5.	Suchendee, ...	5,496

Cawnpore City.

76. I inspected this important and improving city in December last.

Cawnpore is situated on the right bank of the Ganges, at the place most convenient, in regard to the river banks, for the passage of goods from the rich country of Oudh to the Doab, and *vice versâ*. For this reason principally, no doubt, the city has gradually grown up to its present importance. Dating from the time of the completion of the railroad, soon after the mutiny, this city has undergone a rapid change and improvement in regard to importance, and now it is perhaps the most important business centre in the province. Its population has considerably increased ; the merchants and agents living there have become more numerous and richer; manufactures on a large scale have been established, notably in cotton spinning and weaving, and in leather-work, for which indeed Cawnpore has been long famous. The establishment there, however, of the Army Saddlery Factory, and its gradual enlargement, has given a great impetus to trade in leather, which is now much better made than formerly, its price considerably greater. A very considerable community of Chumars have reaped much benefit from this. The trade in skins too has been favorably influenced, so that the Chumars throughout all the country of Cawnpore and the struggling cultivators generally have benefited, even far down in the Humeerpore country, where much poor grass and jungle land gives opportunity for the breeding of cattle, which is a very important element of success in life to them.

77. Cawnpore, being situated only about 50 miles below the junction of the Ramgunga with the Ganges, is admirably placed with reference to an almost limitless supply of wood fuel, as the Ramgunga with its numerous branches taps the wood-producing country to the north of Rohilkhund. For this reason principally it was selected for the establishment of the first, and as yet only, factory for the spinning and weaving of cotton by steam-power. The result now is that a very considerable company of weavers—a class of artizans more miserably depressed and unfortunate than any in the country—find lucrative employment at Cawnpore. This is a most important measure of improvement. For some time past weavers from many parts of the country have been forsaking their homes to establish themselves in the new and, to them, unfavorable climates of Bombay and Calcutta, but principally Bombay, where now there is a large community of our up-country weavers. The former homes of these people may be seen as ruined heaps in many towns of this province, especially in the eastern districts.

78. I think there can be no doubt that these Julahas and Korees would be better placed in their native land, and would probably be willing to work for less wages here than in Bombay. But the requirements of the numerous mills of that city have drawn them away, to the increase of wealth there,—an increase more urgently needed here. I have no doubt that the one factory of this kind as yet established in the North-West is proving a financial success, as well it may, under the good management it now enjoys, and with wood fuel at about Rs. 7 a ton, raw cotton purchasable in any quantity at the cheapest rate in the world. The factory stands on the very bank of the Ganges,—sweetest and best of waters for drinking, for building, and for steam-making,—and certainly, knowing very well as I do the appearance and condition

of the generally impoverished weavers in their homes throughout the land, I have been much impressed by the appearance of sleekness, air of independence, and general betterment, of their brethren who tend the spindles and looms of the Elgin Mills.

But one factory of this kind goes a very little way towards raising the condition of the weaver community as a whole. I think there are hopes of the establishment of a second institution of the same kind at Cawnpore. I wish they could be seen extending in a line along the Ganges bank at Cawnpore, or rising in other places equally well situated for the same purpose. For undoubtedly the oncoming of British Government in India has been a cause of great suffering to the indigenous weavers, and the nearer the relief at length pending can be brought to their homes, the greater its results for good will be.

79. The result of this increase of trade and establishment of manufactories is that Cawnpore assumes daily a busier aspect. I do not think an equal appearance of bustle and movement can be seen anywhere else in the province.

80. As a city, in itself or in its precincts, it has little to commend it by appearance to the visitor, with the exception of the terminal works of the Ganges Canal, which pass through its eastern border. The Memorial Gardens cannot of course be mentioned here, as they have nothing to do with the city, nor are intended for the city people. The site of the city, generally level, is bounded southward by the Grand Trunk Road, and eastward by the canal, which here takes the appearance of a quickly moving stream of deep water, enclosed by masonry embankments, with many buttresses and bounding flights of steps;—a health-giving perhaps, and certainly a pleasant city boundary. Westward the city has no well-defined boundary; perhaps the Humeerpore road may be best counted as a boundary there. But houses extend beyond it, and beyond these houses the land is a good deal broken by ravines, which lead down to the Ganges. Northwards the site is bounded by the Bithoor road, which courses in a line with the Ganges at about half a mile from it, and the intervening space is occupied as the civil station, which stands between the city and the Ganges, and is in greatest measure a part of open parade grounds and garden, or *compound* enclosures. The Memorial Garden is in the easternmost portion of this open part, quite near to the Ganges Canal, and has a small rajbuha, or water-course, to itself from the canal, of which I shall have to make mention hereafter. As in all places on the Ganges bank, the Cawnpore civil station is noted for its gardens, which are very productive in fruit and vegetables wherever cultivation is carefully attended to. This is due in greatest measure to the goodness of the Ganges water, which fills the wells along the bank.

81. As I have shown, the city people reap comparatively little advantage from the neighbourhood of the Ganges. One important roadway runs down from the city to a famous ghat or bathing place, and the daily throng of bathers going to, or returning from, the river is one of the sights of Cawnpore: the people also bring water to drink from the river. But the city can by no possibility extend in that direction, as it otherwise probably would; and I think it is a mistake to locate a civil station between a city and the bank of the river on which it stands. From this cause I think the city, which is growing, has a tendency to spread across the Ganges Canal towards the cantonments, and in the direction of the railway station. Certainly the site proper gets more and more crowded with people. As measured on the map, it appears to include an area of about a square mile, certainly not more; and of the total population, 88,930 persons reside in the city, the balance, 33,840, residing within the limits of cantonments.

As at Meerut, so apparently at Cawnpore, the natural increase of population appears to have become located in great measure within the limits of cantonments. I think this is to be regretted, as placing a large number of persons beyond the control of municipal authority, and bringing considerable masses of people into the more immediate neighbourhood of the soldiers.

82. At Cawnpore I do not see how this was to be avoided, as the city could only under existing circumstances spread eastward across the Ganges Canal, that is, into cantonments, and certainly now there is a very considerable addition to the city in that direction.

If the city could have increased southwards towards the Grand Trunk Road and the line of railway, it would have been a great advantage in many respects. But the land there consists of a region of excavations and brick-kilns, where the bricks, of which modern Cawnpore has been built, have been made, and to the present day it remains in many respects a neglected and filthy region.

83. As a place of teeming population and increasing importance, of course Cawnpore has been provided with a municipal government. The annual income of the municipality averages Rs. 89,000, and it is burdened with a debt of about Rs. 2,10,000, which have been expended in drainage works. This matter of drainage has received more attention at Cawnpore than in any other city of the province. Indeed, it is the first and only city of the province to which a new and expensive drainage system has yet been supplied. At Seharunpore something in this direction has been effected, but not to the same extent or perfection as at Cawnpore. This drainage system professes to drain thoroughly all the square mile of city site before-mentioned, but does not extend to or affect the site anywhere east of or across the Ganges Canal. It happens that the city site is highest in its centre, and the roadway before-mentioned as coming up from the Ganges Ghat is continued through the centre of the site along the highest surface to reach the Ganges Canal. This road is called the new road, and has been widened and improved, in some places made, during the past ten years. It serves to open out the city site in very improved fashion, for it is unusually wide. Trees have been planted along it in some parts, but they have not flourished very well. The houses bordering it are not very good, and altogether it has little of the appearance of a fine bazaar way through the centre of a city, such as may be seen, for instance, at Muttra. Indeed, as I have intimated before, the Cawnpore city has an appearance of business and bustle, but nothing of beauty, and in no part is this more apparent than in the dusty centre way, with its movement of bullock carts, laden animals, and men.

84. This centre road divides the drainage scheme into two separate systems,—one to drain the eastern district, as it is called; the other, the western district, of the city site. Both systems profess to commence from the Ganges Canal, for it was an essential part of the scheme to flush the drains regularly from the canal.

85. The eastern system has for its centre and principal way the ancient Gundah Nullah, now converted into a wide open brick-made waterway, to which similar but smaller ways converge from all parts of the site. Nearing the Ganges, the nullah has been straightened by cutting off a considerable loop in its old course, and so the main drainage way continues as an admirably constructed sewer of oval outline, to end in the Ganges khadir, or low land, quite near to the river bed. The smaller drains of the system which border the thoroughfares end, with proper slope, in the mainh. cannels The head of this eastern system has been brought into connection with the canal, and sometimes water is flushed along the main channel for hours together. During my late inspection the flushing was brought into operation, and was effectually accomplished, but I noticed that there were unmistakable appearances in some parts of the main channel of a want of flushing as a regular and oft-repeated proceeding. However the drainage on this side is, I think, well effected, and should result in carrying the water of excessive rainfall directly and quickly into the Ganges. I think it is well-known that the Cawnpore drainage scheme professes to effect only so much, and has not been provided with any intention of removing sewage proper or latrine impurities. Nevertheless, much of impurity running from the side saucer-drains of the streets must of necessity find its way into the main channels. Hence the necessity for a pretty constant flushing. The success of the scheme, from a sanitary point of view, depends entirely upon this flushing,

not that a great or deep rush of water is required, but, if possible, always a gentle stream should run from end to end of the main channel.

86. I have said that the surface drainage on this side of the city site is well effected, but I must not forget to point out that at one place, called Putkapoor Tank, this is not the case. This tank, as it is called, is one of those abominable excavations which may be found in almost all the cities. It has in part been filled up by earthwork, but it still appears as an excavation about sixty yards square, with shapeless margins, on which sweepings and other impurities are thrown out. It contains much filthy coffee-coloured water, for drainage ways have been cut which lead the rainfall to it, and it is evidently considered as a place of receptacle for rain water. Such a place should not be allowed to remain, and I hope the municipal authorities will determine to continue the earthwork vigorously until it is brought to a level, so that no water can lodge there. It might then be planted with trees, and become a source of health instead of a source of disease, as it probably is now.

87. Also in this eastern site there is a tank, called Khussooun, neighbouring the Bithoor road or Mall, which separates it from the Memorial Gardens. This tank is of moderate size, square, and very deep, and is furnished with steps to go down to the water; but the bottom of the tank is about 10 feet below the place to which the steps reach, and the tank contains very little water. I think it likely that the Gundah Nullah was once connected with this tank, and carried much water to it. Under the new and better arrangements very little surface drainage can reach it now, hence its dry and forlorn appearance. Its sides too are a good deal broken at places. The municipal authorities have determined to reclaim this tank. They have planted the margins with trees, and intend to pour canal water into it, so that the water shall always at least reach the steps. If that can be done, and the water-supply be permanently assured, I think a great improvement will be effected, and perhaps something of comfort result to people who may desire to bathe without going down to the Ganges.

88. The western district drained, formerly, to the Seesamow Nullah, a long and tortuous waterway, which commencing from the brick-kiln excavations, courses first westward, and then northwards to the Ganges, a distance of about three miles, measuring all the windings. The first half mile or so of this distance, reaching from the margin of the brick-kiln excavations, where the Calpee road touches them, to a little beyond the Humeerpore road, has been fashioned into an egg-shaped sewer of large dimensions, to which the drainage of the western district has been directed by three principal branches, some parts of which are covered sewers furnished with manholes, but the greater part are open drains of considerable depth. Where the great sewer ends, just beyond the Humeerpore road, the nullah continues, deepened and improved but unmade, to reach the Seesamow bridge of a highway leading to the Grand Trunk Road. The brick-work flooring of this bridge is raised above the natural level of the nullah bed here, so that it acts as a bund to water flowing down the nullah, as it would do naturally, the fall being 1 foot in 1,200 feet. The result is that much filthy water is collected in the nullah bed above the bridge. From the bridge to the Ganges the fall is good, and might be increased to any desirable extent by straightening the new winding course. I have no doubt this western system of drainage, all parts of which have been efficiently constructed, does effectually remove excess of rainfall from the site everywhere. By reason of it, the Runjeetpore Tank—an excavation of bad repute—has been effectually drained; a large unshaped excavation in the Coolie Bazaar has been filled up, and altogether much good effected. But on this side the important and absolutely essential measure of flushing has not been permanently effected; an escape from the canal for that purpose has been provided, and an endeavour has been made to carry the water by a small and narrow rajbuha, high raised on earthwork, across the brick field excavations—a distance of fully half a mile,—to reach the commencement of the great sewer. A rajbuha of such nature could not be expected

to fulfil its intended purpose, and it was noticed to be broken in several places, and altogether useless. The result of this failure of water-supply is, that the great sewer and other covered drains in this district are a nuisance, much of impurity has lodged in them, from which, and from the trickling stream they carry, so bad a smell came up the manholes, that at my inspection I could only with reluctance stand near any of them. I think it is essential that water should be provided for the flushing at least of the great sewer on this side. At least so much as that must be done effectually, if the Cawnpore drainage scheme, which has cost so much to the Municipal authorities in trouble, anxiety, and money, is to be relieved from a suspicion of partial failure as regards its sanitary advantage. I should add that the system on this side cannot be properly flushed, until the floor of the Seesamow bridge has been lowered from one to two feet, and the bottom of the nullah paved with brick-work up to the bridge.

89. The conservancy of the city was noticed at this inspection to be well effected. A very large establishment, both in carts and men, is employed in this work, and a great amount of sweepings is carried out of the city daily to be stored at a place in the broken, brick-kiln, southern precinct. The sweepings are sold for Rs. 100 a month to a contractor, and are utilized eventually as fuel in the brick-kilns, or as manure. These sweepings, as I saw them, form a vast heap, daily increasing. Formerly I know the Municipal authorities here had determined to endeavour to reclaim and level the brick-kiln region which lies within the triangle formed by the Grand Trunk Road, the Calpee road, and the Canal, and is the southern precinct of the city; and for this purpose a system of burying the sweepings there in shallow trenches was established; and in this way, helped by the gradual digging down of the vast brick-kiln heaps and the persistent cultivation of the land reclaimed, I believe a great work of sanitary improvement might have been effected here. Something in this direction was done, and successfully done, as the good crops now grown there testify, and as I know from actual observation of the level surfaces now, where formerly excavations existed. But the good work seems to have halted midway, and not only are the sweepings now sold for eventual removal, but in carefully examining the depressed surfaces here, I found places of some extent where fœcal matter from the public latrines had been buried under a thin coating of earth, with a view to dig it up again for use as manure, and this in such quantity that it was not considered safe to walk there. I need scarcely say that this is a plan of disposal for such impurities which good sanitation does not sanction: once buried, and it should be done in a thin layer, such impurities should never be dug up again, but the surface should be sown with seed of some quick-growing vegetable. I do not know how long this plan of disposal had been in force, but it was not in force at the time of my inspection, for I noticed that the latrine sweepings were being buried in flat trenches made in a piece of barren plain at the westward border of the city in the neighbourhood of the Soobadar's Tank. This burying was being effected in a systematic and very efficient manner, the earthing over was being carefully attended to, and the result will be, I hope, a fertile piece of land which may be cultivated.

90. Of all the places in or near Cawnpore, the broken brick-kiln site, bounded as I have described it, most calls for improvement, and I have pointed this out before, but as yet with poor result.

Indeed, this unfortunate portion of the Cawnpore site seems marked out for, and apparently irretrievably given over to, disgrace and abomination. Recently a new slaughter-house has been erected there, and an average of 25 to 30 head of cattle are slaughtered there daily. In this slaughter place the arrangements are good, and the building is suitable. The resulting blood runs by a gutter into an iron cart, low placed outside; and when the day's slaughter is completed, the cart is wheeled away to a secluded part of the excavation site, and the blood is poured out upon the surface there, to dry up or to be eaten by vultures, which of course abound. The result is a loathsome bad-smelling place which ought not to exist.

91. I believe this disgraceful southern border of the city might be reclaimed and converted into a people's park or garden. I know that places of that sort are much valued by the better classes of natives, who are beginning to frequent them in increasing numbers wherever they have been provided, as at the Alfred Park in Allahabad, or the reclaimed spaces in the Benares city.

The site can be drained thoroughly to the great Seesamow sewer. At present it consists of a series of excavations of more or less extent, in which a great quantity of surface drainage collects, and it is undoubtedly a cause of fever disease to the inhabitants of Cawnpore generally. Raised into level, cultivated, and planted surfaces, with here and there a properly fashioned tank, and walks between, it would become a source of health. I do not know any city where so good an opportunity of doing this is presented as at Cawnpore, owing to the existence of this at present valueless site so near to the city. Indeed the site may be said roughly to fill all the space between the city proper and the line of railway; and thoroughly reclaimed, as I have suggested, it would not only return reward of improved health and respectability to the residents, but go far to remedy the miserable appearance of the Cawnpore site generally, as visible from the line of rail. I think that in this direction the Cawnpore Municipality have a great opportunity for doing real and lasting good to their city and fellow townspeople; but it cannot be done, excepting upon a settled plan of operations, extending over a few years, and carried out with a persistent resolution to effect the object arrived at. In this way, and by a moderate yearly expenditure, the brick-kiln heaps may be levelled down, the tanks fashioned, the walks made, the drainage effected, and gradually the neglected and dangerous part will be reclaimed. The money spent will, to all intents and purposes, be of the nature of a fund expended for the relief of local distress—coming as it will into the hands of the very poor,—and no form of expenditure could be more acceptable to the native tax-payers.

92. The public thoroughfares of Cawnpore are admirably made and kept, and the inhabited site was noticed to be everywhere clean and in good order. I do not think the surface which bounds the canal on the city side has been levelled and fashioned as it deserves, for I think a very pleasant *boulevard* might be made there; but in regard to sanitation nothing hurtful can be complained of. Yet I did think it was not a good site for the deposit of sweepings prior to their removal by the carts, and it seems a pity to drain the *putrie* of the canal in the centre.

93. There are 30 public latrines in the city, and they are much frequented. They were built by Mr. Halsey, the former Magistrate, and are durable structures, with a centre passage for the sweepers to work in. I have seen these places at a time when great attention was given to their management, and then they were a decided success; but at this inspection I noticed that their management had fallen into neglect,—dry-earth was not used in sufficient quantity as a deodorizer, cleanliness was not maintained, and the places of this nature I saw were very unpleasant indeed. These latrines are situated in some instances in crowded parts of the city, and I need scarcely say that so situated, and wanting careful management, they are a cause of nuisance and ill-health.

94. In penning this unfavorable report, it is necessary that I should guard against any rise of an idea that this city has gained little from its municipal management hitherto. That is not so; on the contrary, a very great change for the better in regard to sanitary improvement has been effected, and will, I have no doubt, be continued. The completion of Collectorgunge, a large market-place of fine shops; the opening out and improvement generally in the public ways; the establishment of cleanliness of the surface generally; the partly efficient drainage provided,—all witness to improvement. But it happens that the requirements of sanitation are of a nature that will permit of no neglect of means established for its goodness, and no stoppage in the course of improvement short of perfection. The realness of its aim can only be made good by the realness of the means. And I trust the Cawnpore authorities

will continue to strive for the first place in the race of improvement now progressing in the cities of the North-Western Provinces.

95. Before concluding this report, I should like to say a word about the Memorial Gardens, which almost touch the city at its north-east corner. They are beautiful gardens no doubt,—most beautiful,—and contain especially roses of many kinds, grown to a perfection which I think might make the gardeners of Europe envious. To encourage, and perhaps ensure, the luxurious growth of trees and shrubs, roses and turf, which characterize the place, a water-course has been provided from the neighbouring canal. On many occasions I have noticed that the water thus easily obtained is poured over the garden site generally (an extent perhaps of 5 or 6 acres) to great excess. I think this excessive watering, which sometimes brings the site in places to the condition of a swamp, is likely, if continued as a settled custom, to become a cause of fever disease to people who reside in the neighbourhood, and to people who habitually frequent the gardens: and so the gardens will come to lose their existing and greatest advantage of healthful places of resort. Already in the colder season I have reason to believe that they are found damp and chilly in the evening time, which is only a popular method of expressing the condition of soil and atmosphere which tends to encourage fever attacks.

The remedy lies in the hands of those who manage the garden, and although by lessened watering, the foliage of the gardens may be less grand, less quickly developed, the result will be very favorable as regards the real strength of the trees, their power to resist the force of the wind in a sudden storm which might throw them down when overweighted with young wood and leaves.

BITHOOR.

96. Bithoor is a town of 8,322 inhabitants, on the right bank of the Ganges, ten miles above Cawnpore. It is the well-known place to which Pajee Rao, the Maharata Prince, retired after his deposal from power with a pension of twelve lakhs: his brother, Banaek Rao, retiring with eight lakhs to Kirwee in Banda. Both Bithoor on the Ganges, and Kirwee and its neighbourhood with its traditions concerning Ram Chund, are holy of holies in the estimation of the Hindoos, and this reason probably prompted the selection of these as places of residence by the Princes mentioned. The well-known incidents of the mutiny should throw doubt on the goodness of the policy which permitted Princes of this character, and with such means, to settle down in the midst of our own country.

97. In regard to Bithoor, however, there is no doubt that it flourished exceedingly during Bajee Rao's time, and afterwards during the time of his adopted son, Nana Sahib. Since that causer of murder and misery was driven away, the town of Bithoor has fallen on evil days. In the year 1868, 465 ruined houses were levelled there, and even to-day very many houses in ruins, or much wanting repairs, may be seen in the town; and its people generally appear to form a poor, straggling community, who well remember their state of greater prosperity in former times, and did not, I thought at the time of my inspection, care to be particularly civil to an Englishman.

98. The town stands in a line with the Ganges, and is long and narrow. The site is well raised, and between the town and the Ganges stream there is a wide strip of hard sand, on which a very important fair is held in the middle, or full-moon time, of Khatik (October-November). The local statement was that about 150,000 persons attended the fair.

99. The principal roadway passes from east to west, slightly inclining northwards, so that its western extremity reaches an important Brahman quarter of Ganges priests, or sons of the Ganges as they are called. These fortunate people form a community inhabiting about 1,000 houses; and beyond their houses and on the brink of the river

a line of twenty ghats or bathing-places make the approach to the holy stream pleasant for the numerous bathers and pilgrims who come to Bithoor. These, mostly brick-built, ghats lead down to the water, for the deep stream is on the Bithoor side of the river; shady old trees grow about them, and though some of them are in bad repair they are cleanly kept, and very agreeable approaches to the river. One especially holy spot in this line of ghats is marked by an iron peg let into the stone, and called "Bhrim Khoontie," and as marking the place where one of the Hindoo deities rested: thousands upon thousands of people come yearly to bathe at the ghats, and testify to their belief in Bhrim. The result is gain to the sons of Ganges, who receive gifts from the faithful. These people especially lived under the protection, and benefited by the presence, of the Maharata Princes, who induced many Maharata Brahmans to settle there too; so that even to-day families of Bombay people, with their peculiar dress and red widespreading turbans, may be found at Bithoor. Indeed quite half the houses of the Gunga-putra quarter are inhabited by them. As I suppose, in some measure, the representative of the Maharata power or cause, the Maharajah of Gwalior grants an allowance of Rs. 2 a month to each of these Maharata Brahmans, and altogether I think the Brahmans are the only well-to-do people in the community. There are about 250 temples in and about Bithoor, which is essentially a town of Hindoos. The principal or bazaar way alternates in width, being at first narrow, it widens going westward, and rising to reach the Gunga-putra quarter, it presents the appearance of a fair bazaar way with pretty good shops on either side. This way is made with kunker, but is not in great part drained at the sides; some of the shops are in double-storeyed houses: most of them are brick-built; tiled roofs predominate, and poor thatches shade the shop fronts. Trees intermix with the houses, and cleanliness prevails here; and, but for an occasional ruined house, this bazaar might be favorably mentioned as the business part of a fourth-rate town.

The principal way is cut in the midst by an unmade road which passes down to the river, and going in that direction is furnished with a deep side-cutting or drain, which serves to carry rainfall away to the river, I suppose from the town site generally.

100. A very considerable improvement, dating only from the past year, has been effected here for the convenience of the people who frequent the fair. Both extremities of the sandy fair site have been brought into connection with the bazaar way by means of new or improved roadways. That to the western extremity, though tortuous, has been widened, paved with brick, bounded by well made saucer-drains, and bordered by a raised pathway on each side. That to the eastern extremity, though unmade, is a wide and convenient way to the fair, and has been cut through intervening high ground in very convenient fashion.

101. The houses generally of the town are brick-built; the narrow ways, and those of the Brahman quarter are very narrow, appeared to be well kept, and cleanliness generally well effected in all the more public ways and places. A house tax, realizing Rs. 2,200 a year, is collected, and twelve public sweepers are employed. They confine their labours to the principal ways only, and filthiness was seen to reign everywhere at the backs of the houses, or in any place much hidden from casual view. Especially behind the houses of the main way on the river side, a wide ravine-like place was seen to be very filthy,—a place of dreary aspect and much broken surface, where pigs roam at large. At the higher part of the main way there are drainage channels on each side of the road: they were seen to be choked up with filthy sweepings. And in other parts of the town there are separate short open drains noticed to be very filthy. Beyond the Brahman quarter, at the very western extremity of the town, the site rises into a low hill, forming a bluff or prominent point in the Ganges bank. Formerly this was the site of a fort, built and held under the orders of the Nawab of Lucknow, when he ruled in the Lower Doab; nothing now remains of the fort, excepting a mosque and temple place attached to an old tomb of one Peer Phailwan, a Mahomedan saint. A collection of mehtars' houses occupy one part of the site, and old Bithoor, as it is called, is below

the fort site. All round this high site the ground was seen to be very filthy, and the same condition was noticed in a short ravine or nullah which runs through the town site hereabouts. These probably are the public latrine places of the townspeople, and the sweepings of the town are thrown out into the nullah.

Old Bithoor is a partially detached collection of houses, nearly all of which are in ruins. The Nana's house forms part of it. It used to be a fine place enclosed by a great brick wall; now the house has entirely disappeared, and the land inside the wall is cultivated with tobacco, wheat, and urhur. The plough has gone over it all.

102. The well water in the town is brackish, owing doubtless to the impregnation of the soil with impurities during a long series of years, for Bithoor is a very old centre of population. Principally on this account the inhabitants universally take their drinking water from the Ganges stream.

103. On the southern side of the main way, towards its centre, the town site is high; on this high part, which now looks like a partly cultivated field, a temple belonging to the Nana stood. But the temple was blown up after the Nana's defeat and flight, and nothing remains of it. To one side of this field a high placed Thannah has been built, and near it, about a year ago, a new school-house was added. The Thannah, which has a good way of approach, is a plain square building with great gates, and was seen to be well kept in every way; the lock-ups suitable, but that for females was seen to be used as a store-room. The mortuary register and returns were found carefully written up to date, and properly preserved. The school-house contains three rooms, the centre one of fair size; all the building in good order. On the open space girdling it, some attempt at flower gardening had been made by the master, but neglect seemed to threaten a failure here.

The remainder and greatest part of this high field was noticed to be frequented as a latrine place, and was very unpleasant from that cause. The land appears to have been sold to the Nana's agent, Narain Rao. Beyond this open place is an old bazaar way higher placed than the main way before-mentioned, and in reality this filthy field is in the midst of the town.

104. I think at Bithoor a greater attention to the well-established rule of retiring to places quite outside the *abadee* (inhabited site) should be exacted of the people: something I think might be done to ensure a more perfect drainage of the site in the rains, and especially drainage cuttings everywhere should be kept free from impurities.

It is probable that twelve public sweepers, if they worked well, would soon effect a perfect cleanliness of the site everywhere; but this will not be done effectually until the people have acquired the custom of retiring to a distance. Nothing helps, to the establishment of this every way satisfactory custom, so much, as marking off the *abadee* limits by means of stone slabs or short pillars, set at intervals all round it at a proper distance from the nearest houses, say 100 yards, and notifying that nothing of impurity may be collected or deposited within the limits thus defined. I do not say that in this way all the requirements of good sanitation will be obtained. But in India, and I suppose in any very poor and partly civilized country, the best must be done with the means at command. And I know from actual experience that this permanent marking off the *abadee* limits, which costs very little, has after a little while very marked effect upon the condition and general appearance of the town to which it has been applied. The surface is reclaimed to purity, the air made sweeter. Birds and animals of prey, but especially pigs, finding nothing there to eat, soon cease to frequent it. The result is an increase of respectability and comfort, which the majority of the people soon learn to appreciate.

105. I think the more hurtful impurities, such as decaying animal matters, if they cannot be utilized at once as manure, are most safely placed, when widespread, where the sunlight and the teeming animal life, and especially the white-ants of this country, may have full play on them. And the arrangement I have mentioned effects this in much

greater degree than can be effected when the impurities lie in the shade of the *abadee*, or in places much disturbed by moving men or cattle.

There are no public latrines at Bithoor, and I do not think that is to be regretted, for experience teaches that these institutions are tolerable only for large cities, and even with the management and supervision available there, are sometimes of doubtful utility. In a country town far away from careful supervision, they are not a success, and are by no means popular.

To-day, Bithoor is of most importance, because of the many bathers and pilgrims from the neighbouring country who frequent it, and I think, if only for their sake, the town site should be recovered to cleanliness everywhere.

BILHOUR.

106. Bilhour is a town of 5,954 inhabitants, situated on the Grand Trunk Road, in the northern part of the Cawnpore District. The town consists of fifteen mohullahs, and covers an extensive site, but it is a poor place, with no trade, and of very little importance. The site is about two and a half miles distant from the Ganges, from which it is divided by khadir land containing much surput and other grass mixing with the cultivation; wild pigs are numerous in this khadir land, and do great damage to the crops. The Eesun Nuddee, going to join the Ganges, passes the site northwards at about a mile distant, and the town site drains both to the Eesun and the Ganges khadir, being fairly well raised, on land which was probably in ancient times the right hand bank of the Ganges. Owing to this good position, the town is well drained even in times of heaviest rainfall. Very little has been done to direct the excess of rainfall to the rivers mentioned, but the water finds its way there without hindrance.

107. The Grand Trunk Road passes through the southern border of the town, so that by far the greatest portion of the town is north of the road.

The principal mohullah, called Awustyara, forms the western extremity of the town, and consists of a very considerable collection of rather fine brick houses, the residences principally of Brahmans, of whom many families reside in Bilhour, although the total population is about equally divided into Hindoos and Mahomedans. The other mohullahs consist principally of mud-built houses, though brick-built houses may be found in every part of the town, which bears evidences of having formerly been more important than now, for several of the better class of houses were in ruins. The only made way in the town is the Grand Trunk Road, and the bazaar, which is short and of no importance, is on it. The other roadways amidst the houses are unshaped irregular passages, serving equally well for purposes of communication and for the removal of rainfall. A shallow nullah, called "Busgurrah," serves to carry the rainfall of the site south of the Grand Trunk Road, under that road, and down through the northern part of the town in the direction of the Ganges khadir land. The drainage of the south side collects in a largish water-hole there, and the nullah commences from the water-hole, being probably a more or less artificial cutting. The necessary culvert beneath the road was said to be sufficiently large for its intended purpose. Beyond the culvert on the north side, the nullah has been fashioned into a wide, flat, brick-built drain passing for a little distance to reach the butchers' quarter, where it suddenly ends in a much broken way, which is the shallow bed of the nullah. I dare say this short brick drain seems to keep the Grand Trunk Road from injury, but to be serviceable to the townspeople, it should be continued to beyond the *abadee* site.

108. Two serais, one on each side, open off the Grand Trunk Road. They consist of good sized enclosures, well shaded by old trees, but the travellers' lodging places are poor, much broken huts. An old Thannah to the western extremity of the town, and on the Grand Trunk Road, has been converted into a school-house. It appeared as a por forlorn-looking house within a high wall. The precincts, sufficiently wide, might,

easily be improved and made pleasant, but nothing in that direction has been attempted. Even the surface was noticed to be unswept. The schoolmaster acknowledged that the place was ill-kept, and said that he had asked for Rs. 40 to improve it without success The sweeper complained that, as he was paid only 4 annas a month, he could not extend his sweeping beyond the school-room floor. A new Tuhseelee and Police Office has been recently erected here in the south-western precinct of the town. Its site has been well chosen, and it is being connected with the Grand Trunk Road by a good roadway. The building—a plain brick structure—was seen to be well kept in all respects; a water-hole, which stands between it and the Grand Trunk Road, has in some measure been fashioned and improved, so that the water it contains may be kept clean enough for bathing purposes and for watering cattle. Its overflow will drain away to the more neglected excavation from which the Busgurrah nullah commences. The mortuary records were found properly cared for and well written up to date.

109. Bilhour being, as I have explained, situated on the border of the Ganges khadir, or low land, is not a town of many excavations or water-holes. In all the northern and more extensive portion of the town, I could only find two of these usually objectionable places,—one in the eastern precinct, and one near to the termination of the made drain before described. I think in a town situated as Bilhour is, these excavations are of great value to water cattle at; of course they might be improved with much advantage to all concerned, but they cannot be dispensed with. The site everywhere towards the khadir rises and falls with a tendency to break into ravines, and it must be difficult to make rain-water lodge anywhere north of the Grand Trunk Road. The inhabitants are principally cultivators; the town sweepings are utilized as manure in the good land bordering it, where much potatoes and shukurkund (sweet potatoes) are grown, with much of other crops requiring manure. The wild pigs it appears make great havoc amongst these valuable crops, having greatly increased in numbers in the khadir land below the town, since, under the Disarming Act, the zemindars' guns were taken away. Some of these zemindars and many cultivators walked with me in the town, and were sufficiently agreeable. They did not, I gathered, think I could ever effect anything to improve the health of the people, but if I could only do something to help them against the wild pigs, I might be a benefactor indeed. I think their oft-repeated and earnest complaint in this matter is likely to be well-founded, as I saw places where the crops had been destroyed by these animals, and even one of the pigs themselves—a great blue-coloured beast, as quick on his legs as a deer, and altogether too strong and fierce looking to be overcome or driven off by *lathies*, without great danger to the men's lives.

110. Owing to this extensive use of manure, the surface was found fairly clean everywhere; manure is stored outside the *abadee*, and the inhabitants retire to secluded places outside the town, and especially in a north-westerly direction, where a rather extensive jungle place exists, looking like the remains of a Rumna or game preserve. In that direction too, nearer to the town, there are appearances of an old fort, which must have been extensive,—now only a mosque and a large tomb raised on a mound remain of it.

111. Perhaps when this fort flourished the town was of more importance: now it is essentially a poor country town, the house tax of which only realizes Rs. 60 a month; and even of this only Rs. 36 are spent in the town as the wages of 10 chowkeedars and 1 jemadar. No public sweeper is employed, and such public scavengering as is effected is done by tame pigs, which wander in and about the town.

If means can be provided, I think this town may be benefited by improving the water-holes; by perfecting the drainage, especially on the southern side, where the commencement of the Busgurrah nullah was seen to be choked with rubbish; and by shaping some of the more frequented ways amidst the houses. Also all the site between the new Tuhseelee and the Grand Trunk Road much requires improvement by levelling and planting.

AKBERPORE.

112. Akberpore, a town of 5,497 inhabitants, is situated about the centre of the Cawnpore District, near to the Etawah terminal branch of the Ganges Canal, and in the midst of canal-irrigated country. The town site itself is pretty well raised everywhere, and its north-western corner is raised into a high mound, on which a modern fort stands, now converted into a tuhseelee. The town, as seen from the tuhseelee roof, presents the appearance of a large collection of mud-built houses embosomed in trees, and the country round, as far as the eye can reach, is seen to be remarkably well-wooded. Around the town site many excavations, being water-holes, may be seen, and in the west outskirt there is a rather extensive jheel, where water-fowl and snipe are numerous. Altogether there is an excessive amount of moisture about the town. This always was the case for some months in the year, in the memory of the existing generation; but since irrigation by the canal was established, the moisture has greatly increased in quantity and become more permanent.

113. To the east the town is bordered by a remarkably fine tank, the only place worthy of mention in it. This tank, 80 × 100 yards square, was built 60 years ago by a Kullar merchant of the town, and is called Kullar-ka-talao. Its walls and steps are perfect now; it is embellished with a fine temple to Mahadeo, and with covered bathing places for men and women separately. It contained twenty feet in depth of water when I saw it, and is a very great comfort and convenience to the people of the town, who bathe in it. Fine old trees stand round it, and especially it is backed by great tamarind trees, making deep shade there. I hardly think in all the country there is a pleasanter tank to be found than this. Its present owner, the descendant, I think the grandson, of the builder, keeps it in good repair, and this tank is a memorable record of the good feeling and thoughtfulness of the generation passed away for the people who now live at Akberpore. The high road from Roora to Calpee, which sweeps round the eastern border of the town, brings this tank into prominent view, so that the first impression of the visitor is that Akberpore must be a very superior sort of town. But within things are different, the general aspect miserable and depressing.

114. The principal way of entrance passes the southern border of the tank, and courses along the southern margin of the town, as an unmade way of depressed surface. At first straight, it soon becomes winding, and at length reaches a small crooked narrow bazaar way of little extent, which passes from south to north, opening out a little at its northern end, where the shops are fair, with brick-work fronts, and the ground is shaded by trees.

The way then turns westward again to reach the raised fort site, which is the place of authority, and should be the best part of the town.

115. The moonsiffee is first reached, for a judge holds court here. The court is a little whitewashed baraduree rented for Rs. 3 a month. It is reached through a small outer enclosure, which was noticed to have cows and calves tethered in it; its entrance gate bordered by a manure heap, the fronting area strewed with broken bricks, the inside unswept for many days: altogether not a fit place for a court of justice. Passing the moonsiffee, the way soon rises to reach the fort site. Fronting the fort, which is small, brick-built, with corner towers, there was once a considerable space of open ground, which has been taken advantage of in very favorable manner: a police office has been built at the northern end, and a school-house to the east, the fort being on the western side. A fair sized plain remains in the centre, open only to the south, and a more favorable opportunity of doing something by way of improvement to the town than this well-raised central space presents could hardly be desired; but, as yet, very little has been done there in that direction. The school-house, built three years ago of bricks and mud, with a flat roof, is well suited for its intended purpose: 82 boys attend the school, of whom 25 are learning English, and undoubtedly it is a prosperous

institution. The police office is built on the new model plan, and is highly respectable in every way. The mortuary records were found to be well kept and written up to date. Some attempt at gardening has been made at one or two places in the open space described, and one or two trees have been planted. But in some places the surface is broken, the circular trench in which lime was mixed remains untouched, used up building materials lie about in places, and the whole aspect is untidy to a degree. Properly levelled and planted with trees in orderly arrangement, a very great change might be effected at little expense, and then people would respect the site, and not use it pretty generally as a public urinal place, which they do in some measure now.

116. The tuhseelee is within the fort, and the entrance way is not from the open square face, but on the opposite side or behind. Inside it is old-fashioned, with an outer court containing huts and trees for the accommodation of the subordinate officials—comfortable no doubt, but an untidy place, and kept with little care; and an inner court containing the tuhseeldar's office to one side,—a well kept and substantial baradaree of former times.

Beyond the entrance gate the tuhseeldar has a neatly kept garden containing the carefully preserved tomb of a Mahomedan martyr, and then the site quickly sinks down to the general town level. Where it slopes away, much of impurity—being sweepings and manure from the tuhseelee and adjoining stables—has been thrown down, broken bricks and old wood litter the site, and the general aspect is unwholesome and depressing.

Altogether, this part of public offices and establishments, which should, by cleanliness and good order, serve as an example to the inhabitants generally, fulfils but little of that important office.

117. Below the tuhseelee, on the west side, a fine new Shiwala, or temple to Shiv, is being built by the Kullar owner of the great tank, who is the principal person in Akberpore; his place of residence too in the southern outskirt is a large square brick-built house. With these exceptions, the buildings of the town are poor in the extreme. The few good houses appear to have gone to ruin, and notably, the property of a Brahman, Budree Deen, once valuable, is now all ruinous.

The town stretches away northwards for a considerable distance, and consists of mud houses of one storey, many ruinous or in bad repair. In all the town there is no made way; little attention is given to the levelling of the roadways, which would appear to be left to take care of themselves; good sized earthern mounds, the result of saltpetre making, and used for that purpose now, may be found both in the north and south sides of the town, and as a whole the town may be safely said to be a miserable looking place; but for the great tank it would look very miserable. At the very entrance to the town by the principal way past the tank, uninhabited houses in ruins appear, and during the past year about 313 ruined houses have been thrown down, the sites cleared; more of this clearance is required, for the empty ruins everywhere are used as receptacles for sweepings and impurities.

The pleasant part beneath the tamarind trees behind the tank is in good part occupied as a small mud-built serai,—a poor ill-kept place, which seems badly placed there.

A new serai, opening off the crooked bazaar way, is being made by the tuhseeldar. When it is ready it might be possible to clear the old serai away, and restore the surface, with its grand trees, to its original condition of clear tank precinct.

118. The house-tax at Akberpore realizes only Rs. 80 a month, of which about Rs. 65 are expended for the pay of watchmen and sweepers. Eight public sweepers are employed, and they confine their labors to the principal ways, which in regard to

cleanliness are fairly kept. But the resulting sweepings and impurities are thrown into ruins, or other out-of-the-way places in the town site.

Three public latrines or latrine spaces have been established here. They consist of fair sized enclosures situated outside the town, and surrounded by a hedge of growing surput grass, the inside surface a simple plain. This I believe is the best form of public latrine for a country town; but, then, it is absolutely necessary to attach a sweeper to each enclosure for employment in burying impurities daily, and preserving perfect cleanliness within it. For the public latrine at Akberpore, which I closely examined, admirable in all other respects, this necessity was neglected. The people evidently frequented the place in some numbers, for the high surput grass afforded a welcome privacy; but, wanting a sweeper, the surface of the enclosure was quite disgraceful in appearance, the air inside very unpleasant. Principally, no doubt, on account of this unpleasantness, the popular places of resort for this purpose are now, as ever, waste places bordering the town, and especially a wide space of this kind beyond the saltpetre heaps which bound the entrance roadway in part southwards.

119. The local authorities allowed that the town site generally was not properly conserved, and attributed it to the fact that Section 34 of Act V. of 1861 was not in force in the town. Perhaps good results might follow the application of that section to this town.

120. The people of the town, of whom I saw considerable numbers, were of unhealthy aspect; and enquiring as to the cause, I learnt that fever prevails to an unusual extent at Akberpore in the autumn season every year, so that no person there expects to go through any year without an attack of fever. This was said to be a trouble which had gradually grown up since the time of the commencement of irrigation by the canal. Since that method has become thoroughly established, the water in the wells, which used to be very sweet and good, has risen about 12 feet, and has become harder and less pleasant to drink; and the inhabitants believe that this liability to fever attack is due in greatest measure to the changed water they drink now, and they also blame the excessive moisture which girdles the town now from July to December.

Something has been done to alleviate this by the making of a cutting from the southern corner of the jheel, for a length of two miles, to reach a nullah which is in communication with the Sengoor Nuddee, distant about five miles from the town, in a south-westerly direction.

This cutting was made two years ago, and has been useful, but already its course is a good deal broken, and if it is not kept in thoroughly efficient order, its usefulness will soon be lessened.

121. From this account, then, it appears that Akberpore is by no means a flourishing town. Its inhabitants consist of Hindoos and Mahomedans in pretty equal numbers, the great majority of whom are cultivators. There is no manufacture of any kind in the town, and very little trade. A market is held there on Tuesdays and Fridays, and then nearly all of business the townspeople do is transacted. I think it likely that the town is less populous now than it was in 1865, when 5,497 persons were reported to live in it. Indeed, I find that it is not included amongst the towns of 5,000 inhabitants and upwards in the census report of 1872. I think this decrease has been due in some measure to an increased death-rate, the result of much sickness, but principally to the fact that as prices have ruled during the past seven years, many struggling people, especially weavers, could no longer exist on their earnings there, and have, rightly enough, fled away to regions where, if food is as dear, money is cheaper. This process of emigration is going on, I think, in many of the smaller towns, and will eventually in all probability affect the village laborers, who are, as a rule, shamefully underpaid, and do with their families live very often in a state bordering on starvation.

SUCHENDEE.

122. Suchendee is situated in the midst of the Cawnpore District, about 12 miles west of the Cawnpore city, on the Calpee high road. In 1865 it was reported to contain 5,496 inhabitants, but in the census of 1872 it does not appear amongst the towns of 5,000 inhabitants and upwards, so it is probable that its population has decreased.

It stands south-east of the high road, and, as seen from the road, looks like a large village. A wide, well kept, unmade way of no great length leads from the high road to the town. This way, continued across the high road, leads northwards to the Bhowpore railway station, a distance of about four miles. It is a wide unmade way throughout, and serves, I have no doubt, very well for such communication with the railway station as the townspeople desire.

123. The town itself is essentially a mud-built place of little importance. The site is rather extensive and generally low; no public thoroughfare is made or shaped in any way. The principal way runs through almost the centre of the town from west to east, and widens in its middle course to form a fairly convenient market place, market being held on Wednesdays and Saturdays. Some good tamarind trees help to make this place suitable for a market. The bazaar is beyond the market place eastward, the shops are very poor, and there is no trade or any appearance of business at all here. A few brick-built houses, especially of the two principal bunniahs, serve to relieve the generally poor aspect of this quiet country town. But the good tamarind trees found here and there along the principal way, and fine trees about the town generally, are positively the only things worth seeing in the place. The eastern precinct is a region of great excavations, across one part of which a narrow brick-built bridge has been made to provide communication with a fort of other days which stood there. The fort now appears as a great grass-covered mound, having been abandoned by its owners since the mutiny. The zemindar now lives at Cawnpore. The usual crooked ways wind amidst the houses, with here and there an excavation, being ragged water-holes of unwholesome aspect. The eastern precinct not only consists of a continuous line of wide excavations, but is a filthy disreputable part altogether. But for the old bridge, it would not be possible for any one to go out of the town in that direction for many months of the year. The bridge and its approaches sadly want repairs.

124. In many places the surface of the town site is broken, as by undue lodgment of water at times, and there was a very general complaint of trouble from want of drainage in the rainy season, when in and about the town a great part of the surface is reduced to mud, which takes long to dry up, and makes it a miserable place to live in. Ruinous houses are pretty numerous in the town, for the want of drainage quickly brings about a condition of instability in the mud walls of some houses, by softening such foundations as they have; then the wall sinks down, and the frail roof breaks.

As yet nothing has been done to remedy this state of affairs; when the rain-water has filled all excavations to overflowing, and saturated all the site, with the exception of the actual sites of the houses which are raised, it then passes southwards towards the lands of Bhaerampore.

125. There is no municipal income or tax of any kind levied in this town, consequently there are no public sweepers, and apparently no management or endeavour at improvement of any kind; with reference to the disposal of sweepings or impurities, every man, so long as he respects the main way, just does as he pleases. Holes everywhere are frequented as latrine places, and some waste places within the *abadee* are dishonored in the same way. Principally from this reason, many pigs wander in the town and about it, breaking the surface, and doing their best to increase the general appearance of neglect. Some of the more respectable inhabitants complained loudly of the inroads of these animals, and the damage they inflicted.

126. A very good brick-built police office stands outside the town on the high road. It has been built on the new model plan, on a small scale, and was seen to be in good order. The mortuary records were found admirably kept in every way.

The town contains a mud-built school-room, with a high thatch roof badly broken. It consists of one largish room, and 64 boys attend it, but it sadly wants repairs and improvement in regard to its site generally.

127. The great sanitary requirement at Suchendée is drainage. The Rind river passes the town at a distance of two miles westward, and I have no doubt the site might be drained to that river. Improvement in regard to cleanliness is also very much called for,—such, for instance, as would result from permanently defining the limits of the *abadee*, and forbidding the deposit of impurities within the limits. I think some small portion of the revenue cess might be devoted to improving this town. The people generally are very poor, and I do not think could well bear even the lightest house-tax.

HUMEERPORE DISTRICT.

128. The towns of the Humeerpore District are:—

	Population.
Raath, ...	14,515
Muhoba, ...	6,977
Koolpahar, ...	6,044
Mowdha, ...	6,025
Somerpore, ...	5,599
Jeitpore, ...	5,150
Humeerpore, ...	5,000

RAATH.

129. Raath is by far the most important town in the Humeerpore District. To it all the trade of the western portion of the district centres. It stands almost midway between Mow Ranеepore to the south and Calpee to the north, and its merchants trade with both places. The town site is on the western border of a great lake called Saugor Talao, a very fine sheet of water, perhaps 1,000 yards in length, and 800 yards wide. The margins of the tank are heaped high with earth taken out of its bed, and on the town side there is a long ghat of steps leading down to the water. This is the bathing place of the townspeople, for the nearest river, the Berma, is six miles from the town southward, the Dussan being ten miles away westward. The Saugor Talao, therefore, is most important and valuable to the people of Raath, not only for bathing purposes, but also to supply drinking water. For the largest and most frequented wells in the place stand on the near border of the tank, and doubtless owe the comparative goodness of their water to its neighbourhood ; the wells of the town site within the *abadee* being, as a rule, rather brackish.

130. The road from Calpee to Nowgong passes the town in the northern outskirt, being joined just before it arrives at the town by the road from Jelalpore, and the road from Muskura Kulan. The principal way of entrance branches at right angles from the Calpee road. At first it is unmade, and its surface, formerly low, has been recently raised by earthwork. It then passes through a quarter of rather poor houses, and where the houses commence, the way is made with iron slag, and drained on each side by a brick-made saucer-drain, an improvement effected last year. The iron slag is peculiar as a road-making material, but it seems to answer well. It owes its existence here to the fact that some years ago iron ore brought from the native states south of the Humeerpore country was smelted at Raath, and I saw the place where this was effected. The manufacture has long since been discontinued, but the slag remained (and some still remains), and has been utilized as I have said. Now the iron which comes to Raath is made at Bijawur, a town about 70 miles south-east of Raath.

131. Beyond the slag-made part the road commences to rise until it reaches the Kot. This place, as its name implies, was formerly an extensive fort, which overlooked the town in all directions. To-day the well raised and very extensive Kot site is laid out as a Gunge, and hardly a vestige of a fort remains. Perhaps some ruined hummams (baths), partly under ground and very durably built, are the only structures remaining which date from the fort time. Everything partaking of martial preparation has disappeared, and the place is given over entirely to the peaceful pursuits of commerce. The main way passes through the centre of the Gunge to reach an open space which fronts the tuhseelee, and on each side streets go off at pretty regular intervals. All these roadways are well made of broken brick and other material, and drained ; the houses, containing shops, are built after one plan, and the streets are named in accordance with the trade or business to which it has been specially assigned —as Passurhutta, Tumora, Buzzazee, Hulwaee, &c.

An important trade is transacted in this Gunge, especially in food grains, cotton, goor, brass vessels, and iron; in all there are about 250 shops in it, and it is

a busy place. The main way, about its centre, opens out into a fair sized mundee, or open market place, surrounded by shops, and then, as I have said, continues to reach the tuhseelee, the open space fronting which is also lined by shops, some of which are in remarkably handsome houses.

132. In the bazaar ways and spaces mentioned a general market is held every Sunday, and then they are crowded with people and carts. Every day many carts arrive and depart, and the accommodation, if anything, is considered to be rather less than the requirements. The houses of the Gunge are all brick-built, and in fair repair, and it may be safely said that this important place of business, which owes its existence, in its present improved form, to Mr. Rowland Money, presents a pleasing instance of improvement, successfully achieved and thoroughly appreciated. The shops are all let, or inhabited by the owners, and there is an appearance of life and reality about this Gunge which by no means always accompanies modern efforts at improvement in the towns. The tuhseelee, in which also the police office is accommodated, is a square brick-built structure with a somewhat ornamental frontage, and I think it is well placed, as forming part of and overlooking the business centre of the town. For this reason principally, no doubt, all the site of the Gunge is well kept in regard to cleanliness everywhere, the happening of nuisance is carefully checked, and good order generally maintained.

133. The inner court of the tuhseelee was found pleasant in all respects, and shaded by good trees. The roofs of the building, which are flat, have been supported secondarily on bamboo slips set close together, and as the slips are decaying, the roofs will fall down in some places soon. The lock-ups are roomy, well-ventilated cells. The mortuary records were found in proper order, but on examination it appeared that deaths from carbuncle, or from diseases accompanied by boils or sores, were entered as deaths from wounds: This instances the difficulty which attends the endeavour to arrive at a correct knowledge of the causes of death. And the result of this mistake was that, according to the mortuary register, Raath would appear to be a place where fatal wounds are pre-eminently common, whereas in all probability accidents and offences against the person happen only in the usual ratio.

134. The Gunge I have described forms the principal and only important part of Raath; around its well raised site there are several mohullahs of lower placed houses, arranged with little order, and divided by tortuous, unmade, but somewhat shaped ways. From the Gunge, going eastward to reach the Saugor Talao, there is a thoroughfare of this description of some importance. It leads to the school-house, a durable whitewashed structure on a raised site, the fronting court enclosed by an ornamental wall. Behind it had out-houses, but their roof was too heavy and has fallen down, making a dismal appearance. The school is attended by 83 boys, but English is not taught. The floor of the school-room was noticed to be filthy, much dirt and dust lying beneath a wretchedly old tat-matting. The court-yard is neglected, and not planted or properly swept. Beyond the school the way continues through the low site of an old bazaar, now in great part abandoned for the better Kot site. The serai opens off the old bazaar to one side, and a space called old Mundee to the other, and the post office is there. This old bazaar, with its adjoining site, has rather a neglected appearance.

The serai, however, is good of its kind, being an enclosure of 50 yards square, well shaded by trees; the travellers' houses brick-built, with round arches; the entrance way furnished with gates. It was seen to be in good order. In this part of the town, too, the putteedar of one-fourth of the town lands has recently built a new mosque.

There is a dispensary at Raath. It consists of a small masonry-built house near to the tuhseelee, and was originally provided for the accommodation of the municipal office. Its too small rooms, shaded by verandahs, afford sufficient accommodation, as only out-patients are treated; an unusually good collection of medicines was seen there, and the institution appeared to be fairly popular and well attended. As yet no

accommodation has been provided for the native doctor attached to this dispensary. He appeared to be attentive to his duties, and certainly keeps the building and its precincts in respectable order.

135. The southern portion of the town behind the tuhseelee is a part of low site, and the outskirt there has been much excavated, I suppose for brick-making, consequently much rain-water collects there, and sometimes even floods a part of the *abadee*. The resident tuhseeldar has endeavoured to remedy this by connecting the excavations, and by making a narrow cutting of some length from the last of them to the Saugor Talao. I should think the result would not be satisfactory, as the bottom of the cutting ends at a level of about one yard below the surface of the water in the lake, which but for a little bund would run into the cutting. However, I was assured that the cutting does carry water away, and remedy the flooding which before existed, and perhaps it may carry water to the neighbourhood of the lake, but never into it.

An endeavour has been made, with a fair amount of success, to provide a public thoroughfare all round the town in its immediate outskirts. It consists of an unmade way, more or less perfect in places, which has been made in greatest portion as a relief work for very poor people. The absolutely necessary culverts for cross drainage have not yet been provided for it however.

136. A few years ago Raath was provided with a municipal government, and an income for municipal purposes was realized from an octroi. This has been discontinued, I do not know why, but perhaps because it was believed that the octroi was not confined to articles actually consumed in the town. A house-tax is now collected, and realizes Rs. 300 a month, of which Rs. 190 are expended on establishment of chowkeedars and conservancy. A conservancy jemadar and 18 public sweepers, who only receive two rupees a month each, are employed in the town, and I think they do their work well, for in respect to cleanliness I saw nothing to complain of anywhere. The sweepings are carried outside the inhabited site, and certainly Raath, as a whole, may be considered a comparatively well-kept town. The people retire to waste places well outside the town, and no part of the actual town site was found unpleasant from this cause. One public latrine was provided during the time of municipal government, but it was never used, and has fallen down.

As a rule, the public ways everywhere have been kept in repair; and although many are of course unmade, they have been shaped so as to drain at the sides, which is a very great improvement on the commoner form of sunken unmade roadway, which drains in the centre. An excavation in the northern outskirt, near to where the Calpee road gives off its way of entrance to the town, has been in part filled up, but the work is not now going on.

Coarse sugar is made in considerable quantities at Raath, the town lands being suitable for the growth of sugarcane, as indeed in many places of the Raath Pergunnah, and perhaps this coarse sugar, or goor, is the principal article of trade at Raath. This sugar-making is located principally in the northern and western outskirts, where many of the common kolhus or sugar-mills may be seen at work in the proper season. The resulting dry cane is burnt to boil the juice, and the site thereabouts was seen to be in fair order.

137. There are two slaughter-places for cattle here, and as many as from 30 to 50 head of cattle are slaughtered daily, principally for the value of the horns, skin, and fat, which are exported to Cawnpore. Consequently meat is very cheap, if not very good; two pice a seer was said to be the current rate. These slaughter-places are well situated at some distance outside the town. Of course they are not pleasant places to visit, nor are they particularly well kept; but they are made of mud throughout, their enclosure walls provide the necessary privacy, and they are placed far enough away to prevent injury or nuisance to the townspeople.

138. The limits within which the 34th Section of the Police Act has been extended to this town are well defined by means of from 30 to 35 low pillars set round the town at proper intervals.

139. I think a very considerable amount of improvement has been effected during the past few years at Raath. The southern border of the town is the part which most calls for further improvement now. The excavations there should be in part formed into a shaped tank, in part levelled. In this way the smaller excavations might be obliterated, the rainfall made to drain to one centre, which should be furnished with an escape channel in the direction of the Saugor Talao.

The circular road about the town should be completed, its margins being planted with trees. This is a very important measure of sanitary improvement, and wherever it has been effected, as for instance at Hatrass, the result has been most satisfactory.

The partly filled up excavations near the commencement of the entrance way to the town at the side of the Calpee road should be completely filled up, and trees might be planted there with much advantage.

I think the public sweepers might with advantage be paid Rs. 3 a month each, instead of Rs. 2, especially as the former is the generally established rate of wages for these servants in provincial towns. It is certain that they work very well at Raath, and deserve a reasonable amount of encouragement.

MUHOBA.

140. Muhoba is a town of 6,977 inhabitants, situated in the southern part of the Humeerpore district.

It is a long and narrow town, through which a branch of the high road from Banda to Nowgong passes from east to west. The country about Muhoba is famous for its lakes and low hills of primitive rock, and the town itself is in great part on the northern bank of an extensive lake called Muddun Saugor, and its western outskirt is bounded by another and larger lake called Keerut Tal. Muhoba is a very ancient town and seat of power; a place from which Chundel, Bundel, Mahomedan, and Maharata Governments have in succession held the surrounding country. Lastly it has fallen into the possession of the British Government, and has been added to a district, the capital of which is Humeerpore. In former times it was a place of considerable importance. The resident rulers, after embanking the Muddun Saugor lake to ensure its permanence, endeavoured to add to its attractions by building temples on its rocky islands and hilly borders, as the ruins there now testify. The Mahomedans even added a mosque on its separate island, and established their burial place with its stone monuments on the borders of the lake. Stone is plentiful, and men of former days used to build in shaped stone. Now the town is of little importance, a quiet of misfortune and neglect rests upon it, and it is perhaps worth seeing only for the sake of the evidences it contains of vigorous life and progress in days gone by.

141. The Banda high road, which, on its way to Nowgong, passes the town at its eastern border, gives off a branch to run through the town site, and so on to Koolpahar. This is the principal way, but it has no shops upon it, and from its width and the widespread nature of the houses there, would hardly be supposed to be the centre way in a town. But in reality it is so, a considerable inhabited site extending on both sides of the way.

Principally the houses are collected on the site between this way and the Muddun Saugor lake. There, and especially along the margin of the lake, the houses are pretty closely packed. North of the way, the mohullahs consist of houses widely spread, many in separate enclosures, and generally Muhoba is peculiar in regard to the scattered nature of the residences which form it.

142. The bazaar is gathered into a Gung e, which opens off the main way by a half-completed stone-built gateway, commenced in 1868, but not yet finished. Inside the Gunge, ways are laid out in the shape of a cross, and are well made. The shops which line them, 150 in number, are brick-built, with arched fronts. The Gunge, so far as its position and plan are concerned, owes its existence to Mr. Grant, after whom it is named. The mahajuns and bunniahs of Muhoba were encouraged to build there, and built accordingly; but they built badly, and many of the shops were seen to be in ruins, and about half of them empty. The ways are well raised and drained. To one side of the entrance way there is an open space used as a mundee, or grain market, and this seemed to be the most frequented and important part of the Gunge, the grain, which had come from Cawnpore, being exposed for sale in heaps on the ground. But the shops, as a rule, appeared to be little frequented, excepting perhaps in the centre way, and probably this Gunge contains many more shops than the requirements of Muhoba people can support. It may have been good-looking once—now it is miserable-looking; and many starving children and women, eating grain as gathered from the dust of the mundee and roadways, added to the misery of the general aspect. Grantgunge is to the eastern end of the mainway: about the centre of this way another Gunge also opens off by a gateway. This is called Georgegunge, after Mr. George Passana, who established it 26 years ago. It commences as a widish open space, well shaded by old trees, around which formerly there were good shops, very few of which exist now; the general appearance being that of a quiet shady spot, well suited for business, but having none; some of the houses even which neighbour it are in ruins. This Gunge continues southwards as a narrow winding bazaar way of no importance to reach the Muddun Saugor lake, to arrive at which, however, it is necessary to go up many steps to reach the top of the embankment, which keeps the waters of the lake from overflowing the town site. This embankment, partly natural and partly artificial, is covered with habitations and temples, and forms part of the town site. On the lake side stone steps in several places lead down to the water. Only five steps were seen to be uncovered; many more going deep down under the water. Formerly many steps remained uncovered, but the former outlet existing at the western corner of the lake, and forming the commencement of the Chundrawul nuddee, has in late years had its level considerably heightened by the Engineers of the Irrigation Department, and in consequence the water in the lake has risen some ten feet.

143. A grand lake results I must say,—a lake of beautiful surroundings in hills of peaked and fissured outline, such as can nowhere else be seen in this province, and it is not difficult to understand why the old Hindoos made it holy, and wished to build about it gratefully. But I am not sure that this rise of water-level has been an unmixed good to the Muhoba people, for since it was effected the water in the town wells has risen ten feet, and moisture invades several low-lying spots on the town side of the bund (embankment), as may be seen, for instance, in the floor of a low placed mosque built of Chundel carved stones, and, after the fashion the Mahomedans as rulers, thrust down near the steps going up to the principal ghat, which is a place of Hindoo temples. The low floor of this mosque when I saw it was buried in water two feet deep, and this state of things has been established only since the water of the lake was raised to its present level. About one-fourth of the people at Muhoba are Mahomedans; this was their Jamae Mosque, and of course they are dissatisfied about its state.

144. An irregular roadway leads through the town along the margin of the lake, but it is only a way for foot passengers, giving access to the Munneea Deo temple of great local celebrity, facing which there is one tall isolated pillar with tassel ornament, and other proofs of Buddhist origin, which seemed to be as much worshipped as the shapeless stone representing Munneea Deo inside the temple. Passing the temple, the roadway leads to the cemetery of Mobarruk Shah, where that Governor of former times lies buried with many of his family on the border of the lake, and where many

old carved stones are collected. But in all this way there is nothing of business, and little of life to be seen. Indeed, excepting in Grantgunge, there seemed to be no stir or movement in the town at all.

145. The great Keerut Tal, to the west, is formed by a long low embankment covered with trees, which keeps the water from flowing towards the town site in that direction. Although covering a larger surface than Muddun Saugor, its water is not so deep. The houses of the town do not quite extend to its embankment.

146. Many ruinous houses were seen in the town, principally the former residences of Julahas (weavers), for much cloth used to be made here. This manufacture failing to be profitable, the Julahas had to leave their native places to seek a livelihood elsewhere. Now there is no manufacture of any kind at Muhoba, and only so much trade as the necessities of the inhabitants create. A partial system of irrigation by water stored in the lakes which neighbour the town has been created here in late years. The lakes in question are Muddun Saugor, which irrigates about 250 beegahs: Keerut Saugor, 50 beegahs; Beejanugger, 350 beegahs; and Thana Tal, 450 beegahs,—or 1,100 beegahs in all, and no doubt a very considerable amount of food is produced by means of this irrigation,—food which would not be available in years of scanty rainfall.

The houses at Muhoba are often built of unshaped stone set in mud, for stone is the cheapest building material there; but there are many brick-built houses too.

147. The principal way is wide and well kept in every respect; the small canal coming from the lake runs alongside of it for some distance, trees shade it in places, and altogether it is a pleasant part, and seems to open out the centre of the town very well. The other and smaller ways do not receive much attention, but broken stones being plentiful, they seem to have got themselves well scattered over the site generally, to the hardening and improvement of the surface. The drainage of the surface is not into either of the great lakes mentioned; that would be impossible, as the level of the water in them is higher than the level of much of the town site for many months of the year. But the site drains indifferently in a northerly direction to the Dussurapoor and Muggereea lakes, about a mile distant and rather lower place. In turn they drain to the Chundrawal nuddee. But in the rainy season, and for months afterwards, very much water collects about Muhoba generally, and fever is the prevalent disease in all years.

148. There is a school-house on the principal way just beyond the Grantgunge; it was built eight years ago, and consists of two good sized rooms; but the builder forgot to put wood enough in the flat roof,—what there is has sagged from overweight, and the roof is going to fall down, and would have fallen, but for three wooden props. This sort of thing is so common, however, that I hardly like to notice it. I have seen in all this province, broken bridges and partly ruined public edifices of kinds, so many, that I think they influence the public mind unfavorably as regards the stability or reality of the existing state of affairs, and I hope it may be possible to remedy this state of things. The school enclosure is surrounded by an ornamental wall; its surface is neglected and unswept, and in a broken-down latrine place there, much filthiness was collected together. The sweeper does not attend to his business.

A new dispensary has been provided at Muhoba. It was built last year in the form of a square bungalow of two rooms on a suitable site opposite the entrance to the Grantgunge; a good supply of medicines was seen.

149. At Muhoba a house-tax for municipal purposes, realizing Rs. 170 per mensem, is collected; seven public sweepers are employed, and paid Rs. 2-8 a month each; 16 chowkeedars receive Rs. 4-8 each. The sweepers appear to do their work well, for the town site generally was seen to be well kept in regard to cleanliness.

A tuhseeldar resides here, and apparently gives a considerable attention to the management of the town. The 34th Section of Act V. of 1861 is in force with good result, as regards the sanitary appearance of the town generally.

150. The great sanitary requirement at Muhoba is drainage, for much water collects around the town during and after the rains, and especially in the northern outskirt. Any measure likely to facilitate the passage of rainfall quite into a commencing branch of the Chundrawul would do much good.

KOOLPAHAR.

151. Koolpahar is a town of 6,044 inhabitants, in the Humeerpore District, fifteen miles west of Muhoba.

The town site lies under and immediately eastward of two lakes, called Burra (great) and Chota (small), the waters of which are held up by bunds (embankments). The long bund of the Burra Tal runs between two high rising masses of rock, one whitish in colour, the other black; and the bund of Chota Tal shorter, runs from the further side of the black rocks to a mass or ridge of reddish coloured rock which bounds that lake on its northern side, so all the western boundary of the town consists of embankment or rock. The Burra bund is covered in nearly all its length by three country houses, almost palaces, of the Sundeela, Churkaree, and Jeitpore Rajahs, respectively. These fine houses help to give an appearance of stability and permanence to the bund. From their well raised position they overlook the town; from them steps go down to the water, which is a wide placed sheet often much covered with flowering water-lilies, and always the home of many wild water-fowl of different kinds. In the evening time numbers of flying-foxes and bats swoop out of the great trees which adorn the bund here and there. This admixture of still sweet water set in a rocky frame, floating flowers, and teeming animal life, is very pleasing to the native mind, and nowhere can it be better seen than at Koolpahar.

The Chota bund is planted with trees, and some houses of the town come close up to it, but its surface is open, and serves as the principal way of entrance from the north.

152. The town site is naturally hard, with rock very near to the surface. In the midst of the town is a small made tank about 100 yards long by 50 broad, with steps going down to the water on three sides. It was made 25 years ago by Bujwul Singh, lumberdar. Fine trees surround it; the side without steps is planted, principally with plantains, as a terrace garden; at its margins are temples, and a low wall marks its boundary. Formerly this tank was an excavation of unwholesome appearance, now it forms a remarkably agreeable feature of the town site. Much of the surplus rain fall runs to it.

The houses are mostly brick-built, but there are many mud-built too, and amidst these poorer houses are some good white masonry residences of two stories. Trees mix with the houses, the custom of washing the houses with clay-water prevails, and altogether Koolpahar is a town of very pleasing aspect.

153. There is no made way in the town, the natural hardness of the surface scarcely requiring it. The principal street leads down from the great bund to the northern outskirt, where it continues as the Churkaree road.

Its surface is clean and hard, but depressed, the houses on each side poor, some 30 low brick-built shops towards the eastern end form the bazaar, which was very quiet, and at the very eastern end it opens out into a narrow mundee (market place), where grain is sold. In other parts of the town there are shops inside the houses of bunniahs, but no goods are exposed for sale; some trade centres here, principally in cotton and dal, which are exported to Cawnpore and Hatrass.

154. From the southern extremity of the Burra Tal a rocky nullah takes its rise as a commencing branch of the Arjun Nuddee. This nullah, which forms the southern boundary of the town, receives the lake outflow, and to it also the town site drains in some measure. Its bed is deep, and doubtless the town site might be thoroughly drained to it everywhere, but this has not been done anywhere, and in the north-eastern

outskirt there is considerable stagnation of water in the rains which converts all that part into mud. The surface here, naturally low, drains slowly along the course of the Churkaree road, which is impassable at times from this cause.

155. The well water in about half the town wells is brackish, but wells containing good water are sufficiently numerous for the wants of the townspeople.

156. The school-house is in the north-east corner of the town; its site is well chosen, but it is a poor-looking place, with broken walls, its court-yard littered with broken bricks, and generally neglected and unswept: 59 boys are taught there, and certainly they will learn nothing of the advantages of order and cleanliness by going to it.

157. The road to Muhoba goes out of the south-eastern border of the town across a good bridge which spans the rocky nullah, and in the open country beyond the bridge a new serai and a new tuhseelee have been built on this line of road. The serai, completed five years ago, is a masonry structure of sixty rooms, enclosing a good sized space entered by a fair gateway. But the wood of the roofs being insufficient, they have fallen down, and almost the whole place is a ruin now.

The tuhseelee, also a very large masonry structure built in 1872, was occupied for a few months. But when the rains commenced the walls in many places began to give out strange sounds, to the great fright of the tuhseeldar and his subordinates, and when at length one roof fell down, they abandoned the place and returned to the old tuhseelee in the Sundeela Rajah's palace on the bund, where they now are.

Seen as a cracked and broken ruin, which exactly describes the appearance of this tuhseelee, the cause is apparent at a glance. The wood of the roofs was good enough, but the thin walls, made of yellow bricks of bad quality, set in mud inside, with lime only in the outer ranges, were not strong enough to carry them. I think a great portion of the money spent in building this tuhseelee, said to be Rs. 12,000, has been wasted, which is a deplorable circumstance perhaps. But I think its state is more to be deplored, as a quite recent instance of the rottenness and instability which I so often see in connection with Government civil buildings. The people at Koolpahar, cautious as Hindoostanees always are, yet could not conceal their feeling of scorn for a management productive of such results. In speaking of the new tuhseelee, they called it killae (fort), with a smile which I did not understand until I saw its condition. And they said it was quite well known in the town that the new tuhseelee would fall down, because high thin walls of bricks set in mud always did, the earth at Koolpahar not possessing sufficient binding property for such purpose.

158. Under Act XX. of 1856, a house-tax, realizing Rs. 130 a month, is collected here. But the 34th, or sanitary, section of Act. V. of 1861 is not in force. Seven public sweepers, paid Rs. 2 a month each, are employed, and the town is kept remarkably clean, the resident tuhseeldar interesting himself much to this end. Sweepings are carried out of the town regularly and utilized as manure.

159. The people retire to waste, principally rocky, places outside the town, but very near to it, and the bed of the rocky nullah of the southern boundary is the most favoured place of resort for this purpose, because of the water which it contains.

The inhabitants think the climate is good, and certainly the people, of whom I saw many hundreds, looked strong and well. Many of them are very poor, and the high price of food presses them sorely. Some roadways in the town and its neighbourhood were being made or repaired as a work of relief for them.

160. From a sanitary point of view, the measures most likely to be beneficial at Koolpahar would be, the drainage of the north-eastern outskirt to the nullah, and the better management of the retiring places, which should be established further off. Especially, I think, if the bed of the nullah must be frequented for this purpose, the people should be required to go to it at places beyond the actual inhabited site, the part of it which runs through the town site being reclaimed to purity. But perhaps this cannot be well effected until Section 34 of Act V. has been put in force, and the limits of the inhabited site properly marked out on all sides.

MOWDHA.

161. Mowdha is a town of 6,025 inhabitants, situated in the Humeerpore District, about twenty-two miles south of Humeerpore town. It is a place of some importance, and inhabited principally by Mahomedans. The high road from Humeerpore to Muhoba passes through the town from north to south, and is the principal way, and the shops of the bazaar, few in number, line it. From this principal way a wide entrance road leads to the Gunge, which is a square of 100 by 120 yards, surrounded by shops built five years ago by the bunniahs of the town. This is the principal place of business or trade, which is done chiefly in cotton, goor, and rice, as regards exports and imports.

162. The town site is pretty widespread, and consists of five thokes (wards)—Tarose, Husseineea, Uprose, Hydereea, and Kuzeeana, being separate collections of houses gathered together to form one town.

163. The site is well raised, the result probably of lengthened habitation, for the outskirts and surrounding country generally are level. It drains to the Bulendee nullah, which commences about 300 yards eastward of the town, and is a short branch of the Chundrawul nuddee, and the surplus rainfall of the town site has been directed to the nullah by a short cutting, which has been recently made or improved at a cost of Rs. 350. Before this improvement was effected the inhabitants experienced much trouble from the stagnation of water about the town in the rains, but I understood that the cutting had in great measure sufficed to remedy this state of things, as I should think it would always, if carefully maintained.

164. Much of the superfluous rainfall of the surrounding country on the north and west sides has been arrested in its course towards the nullah by earthen embankments, by means of which two extensive collections of water—called Allahee and Oorie tanks—have been created in the northern outskirt, and a third, called Meean tank, in the western. These tanks are much valued by the inhabitants, the water thus successfully stored being of great price to them generally for bathing purposes, and to the cultivators especially for agricultural purposes; and by their existence they serve probably to improve the well water drunk by the people, which is considered very good, standing in the wells at an average distance from the surface of about 45 feet.

165. The town contains many brick-built houses, some of decidedly good appearance: several houses of better sort were seen to be in process of building or repairing, so that a certain amount of prosperity must belong to some of the residents. This is especially noticeable in the short bazaar way on the main road, which, although it contains only thirty-two shops, is in some measure a place of durable houses, with the ornamental fronts peculiar to Bundelkhund, such as may be seen to greatest perfection in Mow Ranеepore.

Of course low houses of poor people are most common, and houses in ruins are pretty frequent in the more obscure parts of the town.

166. A serai opens off the bazaar westward by a narrow way closed by a door. But it is a poor place, ill-kept, and partly ruinous. Behind the serai there is a remarkably good school-house, standing on a raised site,—certainly one of the best school-houses I have ever seen in a country town. It has been very durably built, and appeared to be well kept in all respects. The school-room is commodious: 53 boys, of whom 43 were Mahomedans, are learning there, and all the boys learn English. This school-house, with its well-kept precincts and attached flower garden, is by far the pleasantest spot in Mowdha, and I wish I could describe the school place in all the towns in the same language. For I think a careful attention to cleanliness and orderly arrangement generally within and about the school is likely to have a good effect, not only on the well-being of the boys now, but hereafter upon their characters and behaviour as men, to the great advantage of sanitary progress.

167. In the western outskirt of the town there is a very fine fort, brick-built, with twelve bastions. It was built about 100 years ago by Rao Kuman Singh, the then

Rajah of Churkaree, to whom Mowdha belonged, and is in a fair state of preservation still, although patches of the outer wall have fallen down into the wide ditch which surrounds it.

The police office is just outside the fort gate, and appeared to be well ordered in every respect. The mortuary records were found properly written up to date and well preserved. The tuhseelee is within the fort, which provides ample space for the purpose. The treasury, a strange looking building, is on the centre of the enclosure, the tuhseeldar's office to one side, his private residence to another. The entrance is through the fine fort gate: a wide masonry terrace, originally intended for soldiers and cannon, and shaded by trees, runs round the walls inside, and altogether this tuhseelee is about as grandly lodged as any I know of. Within all appeared in fair order, but something will have to be done soon to the outer face to arrest its on-coming ruin.

168. Mowdha is, I think, peculiar in regard to the endeavour being made there to educate female children; certainly I have never before seen so much attention given to this matter in a country town. Each thoke has its girls' school, and perhaps in all about 100 girls are learning to read and write. I saw many of these girls; they are nearly all children of Mahomedans, and some of them can read and write in Oordoo pretty well. The cost to Government is Rs. 24 per mensem, the balance of Rs. 40—the total expenditure for the pay of the five masters—being made up by subscription.

This peculiar endeavour owes much of the comparative success attending it to the influence of the resident tuhseeldar, who has lived at Mowdha for the past ten years, and seemed to be much respected by the inhabitants. I understood that he encouraged this movement, not only because he believed it would be acceptable to the ruling authorities, but also from a belief that it was a good thing to instil habits of obedience and something of mental occupation into the lives of the girls, who, but for the schools, would pass all their time in idleness.

169. A house-tax, realizing Rs. 90 a month, is raised at Mowdha. Five public sweepers, who receive Rs. 2 a month each, are employed for the conservancy of the town.

I noticed that all the more public ways were properly swept, and the town generally presented a satisfactory appearance in regard to cleanliness; but the sweepings and impurities which result are pretty generally thrown into uninhabited ruins and other out-of-the-way places in the town site, so that, from a sanitary point of view, it would be better to allow the impurities to rest undisturbed where they fall. I think I never can too often repeat that scattered decaying matters are less hurtful in the neighbourhood of houses than accumulated decaying matters, and especially it is hurtful to throw such things into ruins, because the rainfall often stagnates in them too, and the combination favors decomposition. This is the most common cause of the pretty general unpleasantness of the air in the towns during the rainy season.

170. At Mowdha a very good work of improvement might be effected by recovering such ruins as exist to a permanent state of purity. The limits of the inhabited site also require to be permanently defined.

The popular places of retirement are in the neighbourhood of the tanks previously described, and it would serve a good purpose to include them within the inhabited site, so that at least the places of retirement might come to be established at their border furthest from the town.

The principal way much requires improvement. It bears evidence of having once been made with kunker, but now it is low in the centre, and dust lay very thick upon it.

171. The slaughter place has been located outside the town at some considerable distance. Its site is raised and fairly well screened by a broken mud wall: a considerable number of cattle are slaughtered here daily. On the morning of my visit, 17 lay then dead. Of course so much meat as they provide is not required in the town, and

meat is very cheap. The animals are slaughtered principally for the sake of the hides and horns, which are sent to Cawnpore. Travelling agents, principally butchers, search all the Humeerpore country to buy up all the cattle, old and young, sound or diseased, the cultivators or headsmen will part with, and then drive them for slaughter to the most convenient town. Amongst the beasts slaughtered on the day of my inspection several were seen to be diseased, the liver and other organs being studded with hydatid cysts.

But, notwithstanding this, there were many applicants, half-starved women and children of low caste, for these and other internal organs, which the butchers threw to them in charity.

172. I suppose that, excepting as a record of a reality in the world of to-day, it will serve little good purpose to describe the aspect of things in this slaughter place. The animals themselves had not, I think, suffered more than they reasonably must when their skins are worth two rupees, while all their living body can be bought for one; for the established custom throughout the country is that the actual death-wound shall be given by a selected fakeer, who receives one pice for each life, and the accompanying cry to God with which he takes it. And to help his work, the fakeer naturally keeps his knife in good order; daily practice making his hand and actions firm and resolute. At Mowdha the fakeer evidently performed this office well; certainly nothing by way of a blow on the head, which tumbles the animal down and deadens further pain, is practised, as with the larger animals in Europe. The inferior butchers, or the owners, throw the animal on to its side, hold its head back by the horns—a thrust and sweep of the fakeer's deadly knife divides all the front of the neck down to the spine—and the animal's misery is soon over. All this is well enough, but I cannot understand why pariah dogs should be allowed to lick up the blood as it runs out of the wound, why children should be allowed to stand around and see the work, why the filth of other days' slaughter should be left in the enclosure untouched, to the attraction of birds of prey, such as vultures. All this, and more that seemed to be wrong, was noticed at Mowdha, and I think, although the slaughter place is far enough away from the habited site, something of improved management might be attempted with advantage, and especially the enclosure wall should be repaired and heightened, and furnished with a gate.

SOMERPORE.

173. Somerpore is a town of 5,599 inhabitants, situated midway between Humeerpore and Mowdha. The high road which joins these two towns passes Somerpore, raised on an eight-feet embankment, and the town is immediately eastward of the road. The actual town site is raised, but all its outskirts are very low, the land being really the khadir of the Karorun, which is a branch of the Chundrawul nuddee. Indeed the Karorun passes through the southern outskirt of the town, and during the dry season is the way of entrance to the town on that side.

174. The town has no good way of entrance, but is a collection of pretty closely packed houses, many of which are brick-built; the dividing lanes are very narrow, and all unmade. Situated as it is almost in one of the principal drainage ways of the country, of course the rainy season is often a time of trouble; apparently every possible endeavour is made to raise the house sites, and for this reason sweepings are heaped about the houses to protect and eventually raise the foundations, and consequently Somerpore is a very filthy place.

175. It is possible, with guidance, to find a way through the town from the high road, and this irregular and winding way branches into two about the centre of the town, one going to the north, and the other to the east. This last is the bazaar way, the shops being few and very poor. Beyond the bazaar way, and just outside the town, eastward, there is an open space, used as market place, and called Kuttra. In it

a market is held on Saturdays and Wednesdays, and a rather well frequented bullock mart is held in this town once a week.

176. The thannah is a place of mud-built huts, the lock-up a mud-built cell, with a door of bamboo grating. The mortuary records were seen to be in good order and written up to date. The school-house in the northern outskirt is a little barn-like place, divided into cells shaded by a fronting verandah. These are the only public buildings.

177. No house-tax is collected, and the town is quite neglected. Impure cesspools are pretty numerous, and filthy drains run to them, manure heaps are found amidst the houses in some places, and Somerpore is essentially a filthy, bad-smelling place.

178. The inhabitants are principally Hindoos, and the principal persons are Thakoors and Brahmins. But there is a very considerable community of Koomars, Khuteeks and Bussores, and these people breed pigs with a perseverance and success rarely equalled. The local estimate was that they possessed 2,000 pigs. Certainly Somerpore is a place of pigs; these animals roam everywhere, searching and up-rooting amidst the inhabited site, but chiefly in the immediate outskirts. Very little is safe from the pigs here. They accompany people to the retiring places, and fight over the resulting impurities to the common inconvenience and discomfort, and are a general cause of nuisance and harm.

179. The town was bad-smelling in some places when I saw it, but in the rains it was described to be altogether unpleasant in this way to an extraordinary degree. Indeed no person with whom I conversed there seemed to have any doubt that it was about the nastiest place of residence they were acquainted with. For a town which answers to this description, it cannot be necessary for me to point out the direction in which improvements may best be made. And I may add that it would be difficult, searching the province from end to end, to find a centre of population of equal importance with Somerpore to match it in appearance of neglect and bad management. I think it ought not to be possible now to find a town neighbouring a high road, in a condition but little better than that of an ordinary village far removed from observation.

JEITPORE.

180. Jeitpore is a town of 5,150 inhabitants, situated in the southern part of the Humeerpore District, and about five miles due south of Koolpahar.

The town stands on the western bank of a great lake, called Bela Tal, which is probably the largest lake in Bundelkhund. Between the lake and the inhabited site there is a high ridge of rocks bearing the ruins of a very extensive fort. The lake was made by Raja Bel Brihm, who reigned at Muhoba about 700 years ago, and owes its present extensive site to a long bund which encloses the water on the southern border. The Gounehee Nullah, which drains by several branches a very considerable surface of country, falls into the eastern border of the lake, and when the lake is full to overflowing, the surplus water overflows into the nullah again, where its bed comes out at the south-western corner. In fact the lake has been made by embanking the nullah, and continuing the embankment along the southern border to confine the rising water.

This embankment has been heightened and improved in recent years by the Irrigation Department, and Bela Tal is perhaps larger now than ever it was. Irrigation channels or small canals come out from the lake, one to the north, the other to the south, and a very considerable area of land is irrigated from them in the neighbourhood of Jeitpore.

181. The town of Jeitpore covers a very considerable area, the houses being often widespread, with patches of cultivation between them. The site was formerly surrounded

by a stone-built wall, of which remains may now be seen; but all sign of gates has disappeared entirely, and it is not easy to discover that the place was ever fortified in this way. But undoubtedly it was so in the old times, when the now ruined fort built by Rajah Bursung Deo stood up bravely,—a stone-built place of great strength. Then, no doubt, Jeitpore, with its fine lake, was counted a place of great importance, and flourished. It is a quiet place of very little importance now, and most of its people are very poor. The last descendant of its line of governors, Rajah Urjun Singh of Jeitpore, lives there, a comparatively ruined man. His house, rather palace-like, in the southern outskirt of the town, looks out upon the high raised ruined walls and castles on the rock, and over the broad lake; but he is a man without means or influence.

182. The main way, which is part of the high road from Raath to Nowgong, runs from north to south, and is very long, somewhat tortuous, and bordered principally by houses and fields intermixed; at one part of it the houses are more closely placed, and here there is a fine Thakoordwara, built by the queen of Chutterpore—the one good structure of modern times in the town, but not quite completed or used as a Thakoordwara, or ever likely to be, as I understood. The bazaar is a poor place of some 30 shops, in a narrow roadway of broken surface eastward of the main way, and running in the same direction with it. It is reached by a widish roadway which passes from the main way to the southern extremity of the bazaar; and where it touches the bazaar, there is an open surface, which is much trenched upon by a ruinous serai of 32 rooms, only two of which are now habitable, and a ruined and abandoned police office. The inhabited site is mostly to the east of the main way, and extends in that direction even to the foot of the rocks, which rise up to border the lake, and in that neighbourhood there is a rather important community of Brahmans, living in perhaps 300 houses, some of which are good-looking double-storied structures, and here there are several Dewalas or idol houses. Indeed the houses generally at Jeitpore are good of their kind, and often the poorer houses are neatly kept, the walls washed with clay water.

183. There is no such thing as a made way in the town, or any straight way, so that the town cannot easily be described; almost everywhere houses and cultivated land intermix, as though the ancient inhabitants wished to keep room within the walls both for habitations and for the production of food. These fields, in the outskirts of the town, fenced with dead thorn high heaped, are cultivated very successfully; and as the surrounding country appears as a barren land of thorn and spear grass, much broken by shallow ravines, the actual site and surroundings of Jeitpore, with their greenness, give it something of the appearance of an oasis. This is due, as a first cause, to the existence of the Tal, which not only gives water for irrigation, but always ensures a good supply of water in the wells of the town and its neighbourhood.

184. The police office is in a rather castle-like building on the west side of the main way, but only four of the regular police are quartered here, and there is no police clerk. No mortuary register could be found, but a bundle of crumpled papers representing it was produced, and the office copies of the monthly returns were found scattered amongst other papers and books, and this only by going to the Bukshie's house to search for them.

The school-house at Jeitpore is a whitewashed structure, mud-built, with a tiled roof, standing in a court-yard. Eighty boys attend it. They were sitting outside in the court-yard. Inside the school-room was seen to be utterly neglected, the floor covered with a filthy tat-matting, and apparently never swept. Indeed the schoolmaster said that, as the sons of Brahmans attended the school, a sweeper could not be allowed to go into it.

There is no other public building at Jeitpore. Formerly the tuhseelee used to be here, at the place where the police office now is, but the tuhseelee has been removed to Koolpahar.

The water is quite sweet only in three of the town wells, which are of course much frequented, and the surface about these wells much requires improvement. The water in the other wells, which are numerous, is very useful for irrigation, but is slightly brackish.

185. A house-tax, realizing Rs. 100 a month, is collected at Jeitpore. Four public sweepers are employed, and paid Rs. 2-8 a month each. They appeared to keep the more public thoroughfares in fair order, but the sweepings are thrown into out-of-the-way places in the town site. But I did understand that so much of cleanliness as this betokened, was due more to a spasmodic effort to prepare the town for my inspection, than to any continuous or customary effort in that direction.

The commonly frequented latrine place is the ruined fort site, and the waste rocky places about it, and this is sufficiently far placed from the inhabited site, and is of great extent. But some waste places in the town site are also frequented for the same purpose.

Act V. of 1861 is not in force here, and the limits of the inhabited site are not defined in any way.

186. The town possesses nothing of regular trade, and whatever of business exists appears to be transacted on Wednesdays and Saturdays, the market days. Market is held in the narrow bazaar way, and the comparatively wider road which joins it to the main road; but the space is not sufficient for the people who assemble from the neighbouring villages, or for the country carts which bring produce for sale. I understood that it was in contemplation to remove the ruins of the old police office, and in great portion those of the serai which cumber the ground here. The serai is now very little frequented, as travellers pass by the new made highway which runs from Nowgong to Banda *viâ* Sreenugger and Muhoba, and is ten miles south-east of the town, so that only a few lodgings for travellers are required. If this clearance could be effected, and the resulting space laid out as a market-place, a considerable, and I think welcome, improvement would be effected.

187. Jeitpore is a town of Hindoos; indeed there are only twenty houses of Mahomedans in the town. Under these circumstances there is some difficulty about the slaughtering of cattle, which never was permitted until after the mutiny, and is very repugnant to the feelings of the people now. However there is a slaughter place established at a place far outside the town, where an average of four head of cattle are slaughtered daily. The meat principally goes away to Koolpahar, where Mahomedans are more numerous. This business, being done as it were by stealth, is well done, the slaughter place properly hidden away.

188. The people at Jeitpore appeared to be generally strong and well; they praised the climate of the town, and seemed to be contented with their lot. But, as in all this southern country, the price of food is very high, and the poor have to struggle hard for existence. The southern canal from the lake, which goes out at the south-east corner to water the lands of Magrole, is a new work, which has not yet had time to develop its full benefits, but I should think the result will be a considerable increase in food production, which should lower prices locally. But the long southern bund, on which much of success depends, looks very feeble in some places, and in two at least the precious water was running through very fast to escape away by the Gounchee. In one place especially a speedy breach seemed to threaten.

HUMEERPORE.

189. Humeerpore is the seat of government, but by no means the capital of the Humeerpore District, neither is it well placed, with reference to the management of the district, the control of its people, or the improvement of the centres of population. For it is situated on the north-eastern border of the district in the narrow angle of

land enclosed between the Jumna and the Betwa, where these two rivers join. I suppose the seat of government was placed here because of comparative security from attack, and because it is a well-drained and comparatively cool spot, where European officers were most likely to keep their health. But being so placed, it is a fact that the ruling authority is generally very far removed indeed from the western and southern parts of the district, which are perhaps most important, and do certainly very much require attention.

190. Humeerpore town, which in all contains rather less than 5,000 inhabitants, is divided into three separate portions—Rumeree to the east, Sophygunge in the midst, and Humeerpore Khas to the west. And the central portion—Sophygunge—is the part which has grown up and been most improved since Humeerpore has been made the seat of government. Rumeree is a village in which the cultivators of the lands between the two rivers, near their point of junction, reside. Humeerpore Khas was the capital of the Humeerpore Pergunnah, a large estate of about 50 villages lying between the Jumna and Betwa. Its first owner, I suppose, was Thakoor Humeer Deo, the ruins of whose fort may still be seen down in the Jumna bed below Humeerpore Khas, the river having swept all the bank away on that side; and I suppose the pergunnah and town were named after him. Now the changes and chances of time have given his name to a widespread country, including even Raath, Jeitpore, Mowdha, and Muhoba.

191. Rumeree stands close on the bank of the Betwa amongst ravines; it is a place of no importance, excepting as forming part of a sudder station. Sophy Bazaar was added to it in 1853 by Mr. Ingleby, who named it after his little daughter then alive. It consists of a good roadway, well made and drained, which passes first from north to south, and then turns at right angles eastward to reach Rumeree. This is the principal way; it is lined with shops throughout, and is the modern bazaar of Humeerpore. Houses have clustered about it, and all the business of the town centres there. The eastward branch is most important; the best shops are there, as the principal bunniahs of the place have made it their home. On the north side of its course, about midway, an open space of considerable extent, which used to be a rather broken piece of land frequented as a market place, has during the past year been levelled. A large square of new shops, with pointed arch fronts, has been built; a smallish central tower of shops forming an octagon added; the space has been planted with trees, and altogether a great improvement has been effected. This place is called Hackettgunge, after the present Collector, to whom its plan and speedy erection are principally due. The buildings have apparently been durably made at a moderate cost, and certainly it greatly improves the general appearance of the bazaar, which I inspected before in 1871. This new place is to be used as a market place on Saturdays and Tuesdays, and the shops are for the accommodation principally of traders who do not reside at Humeerpore, but wish to have a place of business there. So far as could be judged in its unfinished state, I think this Gunge is likely to prove a success, but all will depend upon whether the want of accommodation in this respect was real and will be permanent. Doubtless, a not inconsiderable trade between the towns of the Humeerpore District and the towns of the Doab, especially Cawnpore and Hatrass, and *vice versâ*, finds a convenient centre at Humeerpore; and to encourage it, it is very necessary that the two bridges of boats there, across the Betwa and Jumna respectively, should be carefully maintained, and early completed in each year.

192. Certainly bridges of boats make a poor and uncertain way of communication for a considerable trade; and for all the trade between the Doab and the Bundelkhund country—which is considerable, and will increase—there are only three such ways at Calpee, Humeerpore, and Chilla Tara. And to reach any of these ways the trade of the extensive Humeerpore country must pass two rivers, either the Betwa and the Jumna, or the Cane and the Jumna, the Betwa and Cane being both unusually rapid rivers in the rains. Not that this is absolutely necessary, as the Jumna, only, bounds

the Humeerpore District for many miles along its northern border, and I believe that a permanent bridge anywhere on its course there would do much to improve the prospects and condition, not only of our own people in this southern country, but of the numberless poor people of the Native States beyond, which are in greatest part a country of thorny jungle and waste, such as those acquainted only with the Doab or Ganges valley could hardly conceive. Undoubtedly the Ganges land, which we have wisely gathered all to ourselves, is the country which should supply the necessities of the people in the south, and any measure which facilitates the movements of trade, by making way for it at all times, and decreasing tolls, will help to that end. These people never can hope to benefit immediately by railway communication, and for this misfortune, the bridging of the Jumna would in great measure compensate.

193. Humeerpore Khas stands well raised on the part of the town site furthest removed from the point of junction of the two rivers, and is absolutely safe from flood waters, which I hardly think the remainder of the site quite is. Indeed, only last year nearly all the land from Rumeree to the point of junction was flooded, and a rise of a few feet more would have created considerable alarm in Sophygunge and the civil station which borders it northwards.

Principally Humeerpore Khas consists of a street running along the bank of the Jumna, and to reach it a very fine made way leads up from the civil station. The serai—very good of its kind—is immediately at the top of this way, and from it shops line the principal street, but the shops are poor. The houses generally are of one story; indeed there is only one double-storied house in Humeerpore. The police office opens off the street, and is situated on the bank of the Jumna at a place where the river is soon likely to cut it away; consequently, although fairly well kept, it is not much cared for. The mortuary records were seen well written up to date, and properly preserved. Beyond the police office there is a low arched gateway, "Gurheealee Durwaza," which opens on to a flight of about 25 steps which go down to the river: this is the popular bathing place, and it is connected in some way with old Humeer Deo,—was perhaps his last remaining gift of benefit to the townspeople. His ruined fort lies broken near the steps.

From the Gurheealee gate a roadway goes southward to pass through a region of scattered houses of some importance, and finally to end as the highway to Calpee. In the town are a few unmade ways of communication, but it is not a place of any importance or business aspect.

194. A house-tax is levied at Humeerpore, and realizes Rs. 120 a month, and several public sweepers are employed. Certainly, both Sophygunge and Humeerpore Khas are carefully swept, and appeared to be absolutely clean everywhere. The sweepings are thrown into the ravines which border the town, and this was especially noticeable to the south of Sophygunge, where it is bordered by a region of ravines which lead down to the Betwa. These ravines are the public latrine places also, and pigs belonging to the people of Rumeree roam in them. However impurities must be deposited somewhere, and I think the ravines answer for this purpose pretty well. The 34th Section of Act V. of 1861 is in force here, and this accounts in greatest measure for the really admirable condition of cleanliness which prevailed everywhere in the town site.

No public latrines have been provided, or are required; the people everywhere retire to some distance from the inhabited site, and nothing of unpleasantness or inconvenience results.

195. As in all sudder stations, the matter of road-making has received much attention at Humeerpore; all the principal roadways in and about the inhabited site are kunker made, and properly drained at the sides.

The civil station is simply a pleasant place of resort—a place of well kept surfaces, shaded by flourishing trees, and cut by neatest of roads. Two or three bungalows with

gardens along the banks of the Jumna, and three or four houses gathered in another place, a handsome block of public offices on a good site, a remarkably well-kept jail, supply the necessary accommodation. The inevitable chukkur runs down to the east and round to the west again,—the whole presenting an appearance of respectability and orderly arrangement, quite in keeping with its character as the seat of government, but very quiet and, I should think, very dull.

I am well acquainted with the aspect of every civil station in the province, and I think their condition is most creditable to those who have been instrumental in bringing them to their present state of comparative good order and pleasantness. I never feel this to be more true than when, after long days of marching amidst towns and villages, where little of order and almost nothing of pleasantness can be found, I come suddenly to a happy looking civil station with its crowding evidences of perfect surface drainage, good conservancy, bright mixture of levelled surfaces, and swelling trees. And I think these favored spots, spread throughout the country, though very wide apart, do by their existence influence the native mind for good,—do act as models of improvement, which I believe I have seen in some measure imitated, in more than one place.

It is this very kind and measure of improvement to which many of the towns, with their broken, utterly neglected precincts, tempt. And to desire a continuance to them, of the energy and attention which has produced such good results in the civil stations, does not seem a very unreasonable thing.

196. The drainage of the Humeerpore site is perfect, as might be supposed with the deep bed of a river on each side of it. The rainfall runs to the ravines to be found on all sides of the site, and so away to the rivers. There are almost no stagnant pools anywhere in the site; they are not required, as the cattle drink at the rivers. At some places the rainfall has been directed by means of shallow cuttings to the ravines, and the drainage everywhere thoroughly effected. In times of great rain, when the rivers are in flood, it happens that a considerable portion of the very valuable fields which extend from the town site to the point of junction of the two rivers, is flooded, but as yet, in the memory of man, the flooding has not extended to the town site. I do not think the drying of this flooded land can be a good thing for the inhabitants of the town, but the harm, if any, is reduced to a minimum by the immediate cultivation of the land as the water recedes. But, good or bad, it cannot, I believe, be hindered or remedied, and to write further about it is useless.

197. The dispensary and the school-house are pretty close together on the west side of Sophygunge; they are both durable masonry structures, admirably kept in every way, and stand in the open ground of a small plain which has been planted with trees, and forms a pleasant precinct to Sophygunge in that direction.

198. The water in the wells at Humeerpore is very good for drinking, and the rivers, with their sweet water, are very handy for bathing, and the people of Humeerpore appeared to be a well-washed, cheerful, healthy community. These houses are neatly kept, and, for natives, well ordered. They were very polite to me, and especially ready to converse on subjects touching their health and general condition; and this, I thought, not from fear or any display of authority, as only a native official of little importance accompanied me, but probably because of kind treatment and benefits received from Englishmen before. And especially they spoke of Ingleby Sahib and his little daughter Sophy as old friends, of whom they had seen a great deal and affectionately remembered.

TOWNS OF THE BANDA DISTRICT.

199. The towns of the Banda District of more than 5,000 inhabitants are :—

		Population.
1.	Banda, ...	... 27,746
2.	Kirwee, ...	... 6,854
3.	Rajapore, ...	... 6,670
4.	Muttound, ...	... 5,201

BANDA.

200. Banda is the capital of the Banda District, situated on the left bank of the river Cane, the southern outskirt being bounded by a nullah which runs down to the Cane.

It it a town of considerable importance, and about one-third of its total population are Mahomedans. For many years past much attention has been given to its improvement, and of the many officers who have interested themselves in this good work, the late and much lamented Mr. Mayne was most conspicuous ; many undoubted improvements in and about the town bear his name now, for he was essentially a man of action, and what he did, was always well done. As a young man, Etah benefited by his presence ; as a Magistrate at Banda, he left many enduring marks of his good spirit and taste ; as a Commissioner, the Alfred Park and Thornhill Memorial at Allahabad testify plainly as to the work he was wont to do, and the way he did it. It happens that I knew the man a little, his spirit of generosity and thoroughness, but I know him best by the works he has left behind, all of which I have seen, and they are of the good kind which will not soon go to ruin, or anywhere prove to be unnecessary. Happen what may, the name will live through all this generation at least.

201. Although Banda is rightly described as being situated on the bank of the Cane, the town site is about a mile distant from the river, as it ordinarily appears, but in great flood times the river rises to a most extraordinary degree. The highest flood limit on record has been durably marked, and it is not very far from the border of the town on the west side. However, as a rule, the river is far from the town, and excessive rainfall has to run for some distance to it. This has provided opportunity for the creation of two important tanks in the town site at its river margin, the course of the rainfall having been closed for that purpose. One of these tanks, called "Kundhur Dass," neighbours the road which skirts the town on its western border to go down to the bridge of boats across the Cane; the other, called "Chabee," is well within the town site, immediately at the foot of a great hill of dark-coloured rocks piled together, which in part fills the background of the town site towards the river, and gives to Banda its most peculiar and striking feature. The houses of the town come close up to this Banda Hill as it is called, and some temples occupy even the lower boulders of it, but it is essentially a rounded mass of naked blackish rocks, piled together in great disorder, to reach a point which may be 500 feet above the city site. No other town in the province can show anything like it, and the townspeople may well be proud of it. This hill no doubt casts its shadow over a considerable portion of the city some time before the sun sets, but I should think it would tend to increase the heat in the town during the night time of the hot season.

202. The principal way of entrance to the town is by the Futtehpore road, which comes down from the north-west quarter ; where it reaches the town a good serai has been built. This serai, called " Mayne Serai," is entered by a fine gateway, and consists of an oblong enclosure of fair size, well shaded by trees in orderly arrangement around it, the travellers' rooms 150 in number—masonry-built, with pointed arches,—all in good order and much frequented. From this serai the principal way continues as a wide well-made road, drained by saucer-shaped waterways. It is first lined by ordinary dwelling houses without shops, nor do shops of any importance appear until the way nearly reaches the heart of the city at Colvingunge. This is a place where

four wide ways meet, but is not the kind of separate business place to which the name Gunge is usually given. The four ways which meet to form it are the important thoroughfares of the city, and it is really an important Chouk; the shops here are good, the houses well built, and no doubt this is the principal business centre of the town for important bunniahs. The wide way from east to west, which helps to form Colvingunge, passes from the neighbourhood of Banda Hill towards the eastern quarter of the town, and after leaving Colvingunge, it narrows, and its surface somewhat uneven, turns across land of low site and a nullah there, by a raised way partly carried on a bridge,—one of Mr. Mayne's improvements. Past the bridge the Chouk is reached. This is a new and improved part of the city, consisting of several streets of shops, all called Chouk, which centre towards the kotwallee or police office, also a comparatively new structure of good quality and appearance. The shops here are pretty good, the streets all well made, an air of business pervades the place, and undoubtedly this is the bazaar of Banda, which owes its present improved appearance to Mr. Mayne. Beyond the Chouk, eastward, is Maynegunge, a small square open market place of poor appearance, the shops mere huts. This place has been given to two bunniahs, but as yet they have not improved their property.

Beyond Maynegunge is the dispensary, a fine building, something like a church, which belonged to the former Nawab of Banda. It stands in a good sized space of ground which might be improved; it is well inside the city, is good looking and well kept in all respects, and is no doubt a useful and valued institution.

203. In the eastern outskirt of the city beyond the dispensary there is a fine mosque, built after the exact plan of the Delhi Jumae Mosque. In recent years its precincts have been cleared and levelled, and it stands out with great show of elegant proportion to adorn the site there. Immediately neighbouring the mosque was the Nawab's palace, standing in enclosed grounds of considerable extent. The Nawab, who was treacherous, I think, in the mutiny, is of course nowhere now—he and his family. The palace and its grounds were confiscated. But little was done to improve this place for the advantage of the inhabitants until the past two years, when the buildings of the palace were converted into a place of residence for the junior civil officials, and the grounds opened out as a small park, or public recreation ground. This work is proceeding now under the care and personal superintendence of Mr. Thornhill, the Collector, and will result in a very great improvement indeed.

But if the buildings could be devoted to some public purpose, I think the inhabitants of the town would be more likely to frequent the park when it is ready.

204. The town site is bounded to the north by an open plain, well planted with trees, and part of the civil station; a fine roadway parts the houses of the town from the plain. On this way a new school-house is being made, which is to be the zillah high school. The building selected for this purpose was the old tuhseelee, but as it was built by Mr. Mayne, it is just as good now as when it first got put together. It consists of a plain, well proportioned, durable building, with a stone-paved floor, standing in a good sized enclosure, in which the well planted trees have had time to come to perfection. Good boarding-houses are being built on each side of the fine entrance gateway, and altogether it seemed to me a most suitable, indeed admirable, place for the accommodation of an important school.

205. In this northern outskirt also, but more within the inhabited site, an excavation of considerable extent, called Guraya (the excavation), has been recently filled up, the surface properly levelled and drained. The site thus provided is to be set apart for a market place for fresh vegetables; a very great improvement results—an improvement which commends itself to favourable notice for sanitary reasons and for usefulness.

206. Viewed as a whole, Banda is a town of many ways, none of which are straight for any considerable distance; the houses, mostly brick-built, are good, many double-storied; the public thoroughfares of any importance are wide, everywhere made with kunker, and drained at the sides. In former times a partial system of very deep open drains

was provided. But they were found to be a nuisance, and many people fell into them, bruising themselves, and even breaking their bones, and at length the local authorities determined to fill them up with rammed earth to such extent as to leave only a shallow waterway above,—a sensible and very satisfactory arrangement. The dangerous nature of the old drains may be well judged of, by the appearance of their terminal branch, which is an open drain at least 15 feet deep, leading from the neighbourhood of Mayne Serai to the Kundhur Dass Tank. But that this drain is fenced, it would be a trap of the most dangerous nature for men and animals, especially in the evening and night time.

207. Banda has a municipal government, which was established in 1866. The average income is about Rs. 17,000, of which, after the payment of wages, about Rs. 5,000 remain for improvements and repairs. I think an average of about one-third of a municipal income should be devotable to such purposes; but Rs. 5,000 is a sufficient sum, and if properly expended, should, as years pass, bring about much of change and improvement.

208. Already the town has derived great benefit from its better government and more liberal expenditure. Ways of communication have been improved and kept thoroughly efficient; drainage has been improved in several places; the town is lighted at night by 208 lamps; conservancy has received a great amount of attention; and to perfect this important undertaking, a very large company of public sweepers are employed. Sixteen public latrines have been provided in the outskirts of the town on all sides; fourteen of these are permanently located, and two are temporary structures of mats, which may be moved from place to place, which is perhaps the better plan. But sweepers are attached to all of these places, and those I saw, although of course unpleasant places of retirement by comparison with an open plain, were as well kept as much frequented institutions of this kind can be. The town site everywhere was seen to be remarkably well kept, and all sweepings and impurities must be carried out of the town, as a regular and well established custom. The result was that Banda throughout—and I walked in every part of it—was found clean and pleasant everywhere. In respect to this matter, certainly I heard a very general expression of opinion of the good effected since the municipal authority was established. The municipal boundary is well defined, pigs are not permitted to pass it, and the slaughter places have been established outside it.

209. The southern quarter of the town is a part of mud-built houses and unmade ways, and the site rises and falls as the commencement of shallow ravines, which carry the rainfall to the nullah bounding the site there. This nullah is, I think, the natural drainage channel of the Banda site, and it is probable that the site might be drained effectually to it without any necessity of deep-cut drains. These seem to have resulted from a perhaps laudable desire to store some of the surplus rainfall in the "Kundhur Dass" Tank, which is much frequented as a bathing place. A considerable rush of water goes to it by the deep drainage way in the rains, it contains much water throughout the year, and is much valued by the inhabitants. I think it cannot be less than 200 yards square; its borders are made with brick, and steps have been provided for the bathers. In several places, however, the walls are broken, almost ruinous. Last year some parts of them were repaired, and this year the municipal authorities propose to continue that good work. Although I do not think it is a good thing to treasure the rainfall drainage of a town site, yet as the tank exists for that purpose, it is best to keep it, so that it will hold as much water as possible. And as the Banda site is really well conserved, and no such thing as an underground sewer exists there, a comparative minimum of impurity probably flows to this tank.

210. The "Chabee" Tank, to which the rainfall of the centre of the town mostly drains, is larger than "Kundhur Dass," long and unshaped. It is formed by the bunding up of a ravine, which, but for the bund, would carry the water away to the Cane at once; the bund of considerable extent, forming rather more than half a circle, narrow for a permanent work, but planted with trees which look well.

I think this tank, which extends by its narrower extremity well into the town site amidst the houses, should be improved,—in some measure shaped so as to make its sides even, and trees should be planted round it everywhere. A considerable surface of its bed dries up in the hot season, and as it now exists, it is very likely to be a cause of fever disease.

211. A considerable trade in cotton, grain, rice, and tobacco centres at Banda. This trade flows in greatest measure, from and to the Doab, by means of the bridge of boats at Chilla Tarra, a much frequented ghat; yet cotton comes also across the Cane, from the southern Humeerpore country, and grain goes there from Banda to supply in some measure the necessities of the struggling people of Muhoba, Jeitpore, and Punwaree. But the rushing flood of the Cane hinders the traffic for many months every year. I did hear some mention of a hope that the Cane might be bridged at Banda at some future time. That would indeed be a work of great importance, but it would be no light undertaking,—a matter of stone and iron throughout. But the foundations would be on red sandstone, which crops up plentifully in the river bed: and the cost after all could scarcely exceed that of the vast stone fort—work of former rulers—which, now gone to ruin, formerly domineered the ghat from the bank opposite to Banda. A bridge open to all, and attracting all, would contrast nicely with the frowning fort, which might even render a mine of stones, for the best purpose stones ever were put to.

Neighbouring a way of that kind, Banda and its people would prosper, but the benefit to the people of the southern country would probably prove to be something past computation now, for what they often want is cheapened food, and nothing will more help to bring it that way, than perfected communications. Sufficient food is the foundation of a good sanitary state in any people, and I know, because I have seen it, that this foundation greatly fails in parts of the province south of Jaloun.

KIRWEE.

212. Kirwee is a much isolated town of 6,854 inhabitants, in the eastern part of the Banda District. It is the head-quarters and place of residence of a Joint Magistrate, who has charge of the eastern pergunnahs, which otherwise would be very far placed from the seat of government—Banda itself being on the extreme western border of the district.

Being thus favoured, Kirwee partakes in some measure of the appearance of a little civil station, with its court-house also the residence of the Magistrate, and its little jail; some of the roadways have been made with kunkur and planted with trees on each side.

213. The inhabited site is made up of three separate portions—Kirwee Khas to the east, Kirwee Maafee in the midst, and Tirohan to the west. And in some maps the town is entered under the name Tirohan, as the capital of the Tirohan Pergunnah, no mention being made of Kirwee. I think it is likely that Kirwee (Kúrwee) only commenced to be of importance when Benaek Rao, the Maharatta Prince, settled there, and built his fine palace, so well known to certain fortunate troops in the mutiny. Be this as it may, to-day Kirwee Khas is the most important portion of the town. Kirwee Maafee is a collection of about 100 houses lining the roadway which lies between Kirwee Khas and Tirohan; and Tirohan is an extensive village of mud-built houses and unmade ways, a place of many pigs, and altogether neglected and filthy, excepting in one more frequented thoroughfare. Ravines which divide Kirwee and Tirohan near to the latter, well mark the division, and they are quite separate centres of population. Kirwee stands on the right bank of the Pysunnee river, a small stream of clear water flowing in a bed of rock and sand, which takes its rise amongst the low stone hills in the southern part of the Tirohan country, and falls with winding course into the Jumna, above Rajapore.

214. The Pysunnee is a stream of great repute amongst the Hindoos, especially in connection with the life and history of their deity Ram Chund, who retired from Ajoodhia to reside for several years in the then forest wilds which neighboured this river. The history is well known and perpetuated by yearly pilgrimages of many persons to this stream, at Chitturkote, where the Mundaknee branch joins the Pysunnee, about three miles south-west of Kirwee. The pilgrims who arrive in some numbers at every full-moon time—but collect in large numbers (from 60 to 80,000) at fairs held there in April and November, the best times for open air life—first make the circuit of the Kamptee Nath hill, where Ram Chund abode, and then go down to Chitturkote to bathe in, and drink of the waters where he bathed and drunk. Kamptee Nath is a dark hill of piled boulders, perhaps 600 feet high, clothed with trees and scrub, and looking picturesque and solemn at its base; an asphalt pathway of gravel and lime has been provided for the comfort of the circling pilgrims, and many temples of poor character margin the pathway. Painted tickets mark the places most worthy of attention, many grave old monkeys sit about or wander on the rocks, and I think it is a very likely place to fetch the general Hindoo mind—to mark it with deep impression of remembrance.

215. Chitturkote, perhaps a mile or more north of the hill, is a place of ghats. The waters of the Pysunnee swell there into something of a long pool, about 60 yards wide, which is bordered by 20 masonry ghats, with steps going down to the water, the general appearance being quite that of a little Benares. Chitturkote appears to be the name given to the ghats and their immediate surroundings, for the inhabited site above the ghats is called Seetapore, and is extensive, the resident population being 2,337. But it is most important in regard to the great number of pilgrims which come to it, and very properly Seetapore has been brought under management and somewhat improved in late years. A house-tax of Rs. 804 a year is raised there, and besides paying for its own rural police, the pay of six public sweepers is provided from that fund.

A new, in part kunkur made way through the centre of the *abadee* (inhabited site), to lead down to the ghats, has been provided. This has opened out the town very considerably, and added much of convenience to the bazaar, which lines it in places, the shops being rather good, with carved pillar fronts. But in greatest part this way has a depressed surface, which drains in the centre. The sweepers keep this way in good order, but the site generally is filthy and unswept, and especially wherever broken ground or ravines exist in and about the site the filthiness is plentiful.

I mention this place here because it is in some measure connected with Kirwee, and managed therefrom, as a neighbouring centre of population of much importance.

216. Kirwee Khas is laid out as a chok or place of four ways forming a cross, the four limbs of which are of about equal length. All these ways are made with kunkur and shaded by trees, and they present a general appearance of low, tile-roofed houses containing fairly good shops, divided by well-kept roadways, trees arching over all.

The northern branch contains the best shops, and it has been well drained by brick-work saucer-drains. Between the northern and eastern branch a considerable portion of the site is taken up by a gola or gunge,—an oblong space of considerable extent, the houses surrounding which were seen to be ill-kept, in places ruinous, with much of filthiness lying in and about the ruins. Trees have been planted in this space, and when they grow up will greatly improve it; but its sanitary aspect is very bad: it much requires improvement as regards conservancy, and especially all ruined places and heaps should be levelled.

217. The four ways mentioned are well kept in every respect, and form a very pleasant, cheerful-looking bazaar for a town of such comparatively little importance as Kirwee. The western branch leads to an open space of some extent, being part open plain and part garden. This space was formerly covered in good part by habitations, which Mr. Mayne removed to provide open precincts for Banaek Rao's

palace, which stands to its western side, on the bank of the Pysunnee. This palace is a great pile of buildings of extraordinary goodness and fine appearance. Now its separate portions have been told off as public offices. The tuhseelee has a principal portion to itself; the school-house is the former theatre room; the police office is in the youngest son's house; the Assistant Superintendent of Police in the eldest son's house; the scholars' boarding place is in the guests' house. These houses, all grand of their kind, and others, stand in one enclosure entered by a remarkably high and altogether splendid gateway. Nowhere else in the province can the public offices be found lodged with such magnificence and wealth of accommodation. The whole place is well kept and highly respectable. The garden, which fronts the palace, is principally cultivated as a nursery for trees to be planted on the public roadways. The mortuary records were found well written up to date and properly preserved.

218. The dispensary at Kirwee is to the southern outskirt, and was formerly the Raja's stables. It stands within an enclosure quite like that of a large serai, and the centre building, which was the residence of the master of the house, has been made into a dispensary. Formerly masonry stalls lined the enclosure wall; many of these have been thrown down, but some in ruins remain, and the wall has many holes in it. About half the dispensary building is inhabited by the Native Doctor, for whom a new house, something like a little prison, has just been completed in one corner against the enclosure wall. But I understood that he never could inhabit it happily; it was so dark and dismal. The fact is, a native likes a hut or two about an open yard shaded by a tree, and is neither happy nor well in a close place, such as the abode mentioned.

219. A house-tax, realizing Rs. 816 per annum, is raised at Kirwee. Six public sweepers are employed; they do their work well as regards the principal roadways, and the centre of the *site* generally, but sweepings and impurities are thrown into ruins and in the immediate outskirts of the town, where it lies to decay, or be carried away by the rains, as very little manure is used in the fields about Kirwee, the cultivators being prejudiced against its use. At least that was the account I received as excuse for the want of cleanliness around the habited site. At Kirwee Maafee the collections of this kind, being very good manure, were unusually plentiful behind the houses.

220. The town site drains well naturally to the Pysunnee, but I saw places where the natural drainage might be facilitated with much advantage, and at little expense.

221. Monkeys are a cause of much trouble at Kirwee, being very numerous, and stealing and destroying without stint. They are specially fond of throwing down tiles from the roofs, and to prevent this the roofs pretty generally are covered with a layer of thorny bush brought from the jungle. Of course *nobody* ever thinks of injuring a monkey, as, for some mysterious reason, these destructive and useless animals have had something of god-like attribute assigned to them; so that a man who would never hesitate to strike his neighbour for slight cause, would never dream of striking a monkey for tearing down his roof. Monkeys are very well in the wilderness to which they belong, but they are altogether out of place in a town, being filthy, indecent, destructive creatures, who snatch away the children's food; and sometimes severely bite an unwary person. But I fear, so long as their relationship to Hanooman is believed in, there can be no remedy for this state of things.

222. With reference to the centres of population which I have endeavoured to describe here, I think Seetapore should be further still improved; certain filthy places, not hard to find there, levelled and reclaimed to cleanliness; its smaller ways repaired; its general conservancy improved. Perhaps the 34th Section of Act V. of 1861 might be enforced in it.

This section is in force at Kirwee; but the boundary of the inhabited site has not been properly defined, so that as yet people do not well know how far sweepings should be carried out before they can be thrown down, or how far they are called upon to retire for other purposes.

But I should say that the more frequented retiring places are at some distance from the inhabited site, and that in other respects, although conservancy is by no means thoroughly effected, nothing very objectionable or disgraceful could be seen anywhere. Tirohan very much requires improvement.

223. The water in the wells at Kirwee is good; the climate also is considered good by the inhabitants, who appeared to be generally strong and hearty.

RAJAPORE.

224. Rajapore is a town of 6,670 inhabitants, situated on the right bank of the Jumna, in the north-east portion of the Banda district, and of very considerable importance. Indeed, I think in regard to trade it is the most important place in the Banda district.

225. The inhabitants are almost all Hindoos, there being only a few houses of Mahomedans in one outskirt of the town. Brahmans are especially numerous, inhabiting some 2,000 houses, and a curious custom which forbids the erection of any but mud-built houses prevails here. Temples may be built of durable masonry, but no person in the town can build a masonry house to live in. This custom is said to have taken its rise from the influence of a Goosain who was powerful in the town, indeed founded it 300 years ago, and who uttered a curse against the builders of brick houses. The image of this Goosain, appearing as a little black stone idol, with pearl-like eyes, is worshipped in the town now, being lodged in a small temple place of the old town which overlooks the Jumna. The keepers of the idol and descendants of the Goosain stated that it was endowed with Rs. 684 a year by Government, which of course must be a mistake, but that was the general belief in the town. I suppose the first Goosain became a revenue-free landholder, and that the above sum is paid in lieu of income from that source. But whatever the cause, the result is that the pretty numerous community of Goosains, what with the Rs. 684 a year and frequent gifts from worshippers, appeared to be well off and comfortably settled in large mud-built houses which crowd around Goosain-ka-sthan in the best part of the town site. Neither Khoomars nor Tailors are allowed to reside in the town, so that no vessel of baked clay and no shaped clothing may be made.

226. The site of the town is generally level, the level cut in some places by ravines, which run down to the Jumna, and the town itself consists in greatest measure of 14 mud-built Gunges grouped together; Gunge here being the name given—instead of Mohullah as in other places—to the different quarters of the town. This in itself is a very sufficient proof of the comparative importance of the town; but, in addition to the Gunges, there are 20 Baras (enclosures) in the town, or places where goods in transit are stored. For, indeed, an important trade in cotton, sugar, goor, iron, grain, spices, ghee, cloth, and salt centres here.

227. The town is in connection with Kirwee by a wide but unmade way, which comes up from the south-west to pass through the town to reach the Jumna, forming the principal way. This main way is well made with kunkur, and drained at the sides by wide saucer-drains; as it approaches the river it narrows, and the drains on each side are deep and dangerous. Some of the best Baras open off this road, and especially the Bara of Madho Pershad, the principal trader and zemindar of the place. They resemble small serais, and are planted with trees, which make pleasant shade in the enclosures, carts and bullocks rest in them, and goods are stored in the mud-built houses around. Perhaps the best shops in the town are on this road, but there are no really good shops in the place; all the houses, with one exception, the property of Shunker Lall of Allahabad, being of one story, low, and roofed with tiles. And shops are scattered in many places amidst or in the different Gunges.

228. Of the Gunges the principal is Kumptagunge, which consists of a good sized open space, bordered by rather large godowns, fronted by spacious court-yards, fenced with bamboos for the protection of the goods stored in them. As a rule, the

other Gunges more resemble collections of houses divided by narrow unmade ways, which are bazaars, and in several parts present a busy aspect, and I have no doubt that Rajapore has in recent times been a thriving town. It was said to have suffered considerably, as regards trade, in the last few years, owing to the rise of Burdadee near Sutna; Burdadee being well served by the railroad, while Rajapore depends for its prosperity principally on the river. And now only an average of eight boats visit it every month, while formerly many more used to come.

229. The main way, soon after it enters the town, divides into two branches,—one, kunkur-made, going on to the Jumna direct, the other winding eastward to reach the market place. Shops line this way, which is one of the bazaar places before alluded to; it is unmade; its surface low and broken. The market place is an open space of considerable size, in which a general market is held on Sundays and Thursdays, a considerable crowd of country-people attending. Baras neighbour it too, and it is an important part of the town site, which much requires improvement. From its north-eastern extremity a short way leads to another open space, much resembling it, but larger. This open space is frequented as a public latrine space, and was seen to be abominably filthy. Its surface is low, not planted with trees or improved in any way, yet it lies well inside the town. The market place and Kamptagunge neighbour it, and it ought not to exist in its present form. Eastward the town spreads widely under the name of New Town, the place having grown in that direction as it prospered, and there we have Guneshgunge, Madhogunge, Doorgagunge, Khobergunge, and some others, with the Buzaza, which is a place of narrow shop-lined lanes thickly peopled. At one part behind the shops of the Buzaza is a small very deep excavation, a filthy, bad-smelling hole, much calling for improvement.

230. A rather deep ravine commences abruptly in Doorgagunge, so abruptly that, but for a low mud wall, it would be dangerous to pass that way. This is the principal natural drainage way of the town site in that direction. It was noticed to be used as a place of deposit for sweepings and impurities generally, thrown over the wall, to lie in the bed and on the banks below. And this was noticed to be a pretty general condition of all the natural drainage ways of the town site. Many Khuteeks reside in the outskirts who keep pigs. The local estimate was that about 2,000 pigs roam in and about the town, and especially in the ravines, or in the open spaces frequented as latrine places.

The western outskirt of the town is a place of excavations of quite extraordinary extent, still continuing and made without order or arrangement; one great excavation there bordering the Banda road, which alone divides it from the inhabited site, might well be improved into a decent tank. But in truth all this part is neglected and put to filthy purposes; pigs roam there always, and in the rains a great quantity of rain water stagnates there, and even overflows, so that the Banda road becomes impassable.

231. The school-house is in this neighbourhood,—a poor-looking bungalow of mud and tiles, the roof leaky. Fairly well situated, its immediate neighbourhood is frequented as a latrine place in a general and shameful way by many people, pigs doing the work of scavengers. The serai borders the school, and is a fair sized enclosure with one row of travellers' rooms. Formerly there were three rows, but so much accommodation is not required now, and the place has been recently remodelled. It was seen to be in good order in all respects. The police office is well outside the town, on the Kirwee road; it was built 3 years ago on the new model plan, and is good in all respects. the lock-ups especially good of their kind and sufficiently commodious. The mortuary register was seen to be well written up to date, but no copy of the monthly Form B. is filed, the duplicate form having been divided to provide for the return of two months, a custom which seems to have become established in the Banda district generally, although the duplicate form would seem to speak for itself in this matter.

232. A house-tax, realizing about Rs. 1,700 per annum, is raised at Rajapore. In all Rs. 1,668 are expended in wages of chowkeedars, bukshee, and sweepers, so that very little remains for improvements. Twelve public sweepers are employed at Rs. 3 a month each. They confine their labors to the more frequented thoroughfares, which appeared to be well kept in regard to conservancy, the main way especially so. But, as I have described, the pigs are the great scavengers, and, viewed as a whole, Rajapore is a filthy place, and altogether much requires a better management.

The 34th Section of Act V. of 1861 is not in force there. The boundary of the habited site has not been visibly defined, and the people generally, as I often notice in a town where no Mahomedan influence exists, care little to retire to secluded places, but sit down in open places neighbouring the houses in a shameful way.

233. This town offers a favorable field for the work of improvement. It really is a place of importance, and I think the census must understate its population. The local statement was that the population came up to 7,200. It appeared to me to be more populous than that even, and is certainly a place of considerable business movement and activity.

Its less important roadways much require repairs; its market place calls for improvement. The only excavation actually of the town site, in the Buzaza, ought to be reclaimed to purity; if possible levelled. The natural drainage channels easily found should be brought under management and carefully preserved for the speedy removal of rainfall, which does, however, find its way very readily into the Jumna for the bank on the town side is high and abrupt.

No one measure will tend so much to effect a real improvement in this town as the enforcement of the Act before mentioned, and the permanent defining of the inhabited site, which should include the immediate precincts.

MUTTOUND.

234. Muttound is but a large mud-built village, containing 5,201 inhabitants, and situated in a part of the Banda Pergunnah, which extends itself across the Cane into the Humeerpore country. The high road from Banda to Nowgong passes the town, which stands immediately to the southern border of the road.

235. There is no good way of entrance to the town from the high road, or indeed any good way in it at all. But it is just an extensive collection of mud-built, tile-roofed houses or huts divided by narrow winding ways, unmade, and seldom, if ever, repaired. The most important way perhaps leads from the centre of the town westward, but it is really the natural drainage way of the town site, being a commencing branch of the Bichoya Nullah, which joins the Chundrawul Nuddee, and so the town site is drained pretty effectually to the Cane. And indeed the town site margins, if it does not in some measure trench upon, a natural drainage surface of considerable extent, as may be seen along the eastern outskirt, and the rainfall of the surrounding country, which collects here to flow on to the Bichoya, has its course arrested by a series of embankments forming several tanks or water-holes, which, however, hold water only for a few months in the year.

236. But the westernmost of these tanks, called Bhoja, which borders the south-east of the town, is of a different character. Its embankment is extensive, wide, solid, and high, and effectually confines the water, to the formation of a round lake-like tank, about 300 yards in diameter. This tank is of course much valued by the inhabitants; its bund has been planted especially with banyan and peepul trees, now old and widespreading, and the pleasant place thus furnished is much frequented by bathers in the morning time, and by the more respectable inhabitants for exercise in the evenings.

In the western outskirt are two hills of piled boulders, on one of which a rather fine house of a Goosain is built, and lying in the town as corner-posts or steps to doorways, many carved stones of dark granite may be found which once formed parts of a Chundel temple situated on a hill at a little distance from the town northwards. No vestige of the temple exists there now, as all its stones have been scattered as described, or have been better utilized in building bridges for the highway.

237. Amongst the mud-built houses of the town is one masonry-built house of a mahajun. The bazaar surrounds a small market place in the south-east corner of the town neighbouring the great tank. There are perhaps 20 shops in all, and in the open space which they confine, a general market is held on Mondays and Thursdays. The people of the surrounding country attend the market in good numbers for the sale of their produce, and the purchase of the very few luxuries of life they enjoy; but the market is not important, nor does anything of trade or business centre there. The principal inhabitants are Thakoors, and the chief employment of the people is the cultivation of the town lands.

238. The Thakoors of Muttound made themselves famous in the mutiny by receiving and protecting two European gentlemen, a lady, and two children, who had fled away from Nowgong, and they show with pride now the ruinous mud hovel near the centre of the town where these unfortunates were lodged for a period of about six months. Of course they deserve much of praise for this, and have, I think, been treated ever since with much consideration.

No house-tax is raised in the town, and no public sweepers are employed. Twenty-four chowkeedars are employed, and I suppose they are paid from the same fund or in the same way as village chowkeedars.

239. The police office is a small place on the Banda road. It was in good order. The mortuary register was found written up to date, but from the entry of days on which no death had occurred, and from the totalling of days of a single death, much space has been wasted; sometimes in a whole page only two deaths were recorded. This was thought necessary to make the register an exact copy of the monthly return, of which, however, an exact copy should be filed, but was not, the two halves of the duplicate form being used for separate months.

240. The school-house, the only other public building, is on the drainage roadway before mentioned. It is a tiled barrack-like structure, mud-built, the verandahs opening by wide arches to the centre room, so as to form in some measure one commodious hall. The mud floor was noticed to be very damp; in the rains it must be moist; only 32 boys attend the school, and it did not appear to be a very popular institution. The site behind is crowded by houses; no sweeper being allowed, the precincts were seen to be unswept and neglected, and but for trees, recently planted along the open frontage by the Naib Mudurris, the general aspect would be quite miserable. I think the site has been badly selected for a place of this kind.

241. The water in the wells at Muttound is only 24 feet from the surface. In some wells it is good, in others brackish. But the wells of good water are sufficiently numerous for the requirements of the people. As there are no public sweepers, of course the town site generally is filthy. To judge of this without difficulty, it is only necessary to inspect the site and surroundings of an excavation in the Acharun mohullah. It will be found surrounded with manure heaps of long standing, its surface a place of deposit for all impurities the people wish to throw out. Places of the same character may be found in other parts of the town site wherever a waste or vacant spot exists, and although it is not by any means such an utterly filthy place as Mowdha, still its conservancy very much requires improvement, and especially the rule requiring the establishment of the manure heaps outside the habited site should be observed.

CONDITION OF THE TOWNS OF THE FUTTEHPORE DISTRICT.

242. The important towns of the Futtehpore District are:—

		Population.
1.	Futtehpore, ...	19,879
2.	Khujwa, ...	5,150
3.	Bindkee, ...	5,000

FUTTEHPORE.

243. Futtehpore, the capital of the district of the same name, is not a town of much importance, and, although it has now been provided with good railway communication for many years, its trade does not appear to have much increased. The fact is that Futtehpore is essentially a non-trading town of many Mahomedans, while Bindkee, the most important place in the Futtehpore District, is a trading town of Hindoos; and the trade of the Banda District, and of the country across the Jumna generally, flows across the Chilla Tarra Ghat to Bindkee.

But Futtehpore, as the capital of the district, has received much attention, while Bindkee apparently has received very little.

244. The town may be described as follows:—

245. The Grand Trunk Road coming from the east divides where it touches the town into three branches; one, the continuance of the Grand Trunk Road itself, to go through the northernmost portion of the town; the second, to go through the centre of the town from east to west on its way to the civil station; the third, to go through the south-eastern border of the town on its way to Banda *viâ* Chilla Tarra. A fourth roadway, being the highway from Dalamow Ghat on the Ganges to Chilla Tarra Ghat on the Jumna, passes through the centre of the town from north to south, thus forming two Choks with the two ways first mentioned, and eventually joining the Banda road south of the town.

246. The roadways described provide a most admirable public thoroughfare in Futtehpore. They are all kunker made, well drained at the sides, and carefully kept in all respects. The houses which border them and stand on all the site about them are almost all of one story, and fully three-fourths of them are mud-built, with poor tiled roofs; some are built of bricks set in mud—ruinous houses are pretty common, and the general aspect is that of a town of poor people.

247. The bazaar is upon the four ways formed by the meeting of the Dalamow road from north to south, and the centre road from east to west, and the best shops are on the former roadway. But there is hardly a good shop in the place, and no appearance anywhere of thriving business.

248. Perhaps half the people are Mahomedans of the poorer sort, and Futtehpore appears to be a place which has grown into such importance as it possesses,—formerly on account of some victory gained there, and latterly on account of the important ways of communication which meet there, but never in any measure from its importance as a centre of trade.

249. It has no Gunge, no market-place, no fine bunniahs' houses.

250. The Grand Trunk Road opens it out finely along its northern border, and gives it some air of importance there, especially at the junction of the Dalamow road, where there is a mosque of Bakir Allee Khan and two or three adjoining tombs, the precincts of which have been lately improved into a flower garden fenced by an ornamental wall. But the mosque and tombs are of little importance, the latter ruinous. This small garden seemed to be the only pleasant place in the town, and I dare say it is a considerable improvement upon the former condition of the site there.

251. Entered from the civil station, the centre way after passing through a region of excavations winds at first through a quarter of mud-built houses to reach the Chok, on both sides of which there are poor shops.

252. Past the Chok, a small enclosure, called Clarkgunge, opens off the way. I suppose an endeavour was made to establish a Gunge there, but its present appearance is that of a ruined serai, which has been rented for Re. 1-4-0 a month to a keeper of dâk gharries, who plies his business there. A market is held in the town on Saturdays and Thursdays, and the country peop le used to assemble here as well as in the bazaar ways. Beyond Clarkgunge is the police office, a new building of model plan, the walls cracked in some places. The mortuary records were seen to be admirably preserved, the monthly forms bound into a book, the register carefully written up to date. Behind the police office a new meat market, a small place of brick-built cells, is being erected. From Bakir Allee Khan's mosque, going southwards, the Dalamow road is a fairly busy bazaar way in all its course through the town, and this is the chief bazaar, but, as I have before said, it is not important. The side drains on this way are narrow and deep, especially to its northern part, and in some places chabootras, or wide shop steps, cover the drain and hinder its perfect cleansing.

253. The most important person in the town, Raj Bahadoor, has a large brick-built place of residence on the Grand Trunk Road, but it appeared to be in bad repair. However, he is doing something to improve the town by building a Gunge, of rather poor kind, near to the Grand Trunk Road, opposite the mosque. The serai too, large of its kind and well kept, opens off this road, and, where the Grand Trunk Road goes out of the town westward, the tuhseelee and dispensary hem it on one side, and the school-house on the other.

254. The tuhseelee consists of a large mud-wall enclosure, containing a bungalow for offices and mud huts around for servants.

255. The dispensary is a plain durably built structure, providing admirable accommodation, and standing in an open space, well kept in every way, but bare of trees.

256. The school-house is barrack-like, but in very good order indeed. The boys attending the school were seen to be very numerous. English is taught with much success, and the place had every appearance of a well managed institution, where silence reigned, and the business of learning was being pursued with uncommon order and reality. The site behind the building is low, which must be a cause of unpleasantness in the rains. It might be easily raised for some width without interfering with the natural drainage channel there, and the result might be satisfactory as regards the comfort of the school people, who complained that, owing to this lowness of site, the air in and about the school-house was very damp and otherwise unpleasant after rain.

257. Futtehpore is managed by a municipal committee of five Mahomedan and four Hindoo gentlemen, in addition to the usual *ex-officio* members. The income derived from octroi and other sources averages about Rs. 12,000 per annum. Of this sum, Rs. 3,756 are expended for conservancy, and Rs. 2,640 for the payment of municipal establishment. And I should suppose that, when the necessarily heavy item for police has been expended, very little remains for works of improvement.

Of the total for municipal expenditure, Rs. 528 are expended for municipal teachers, a vaccinator, and a pound-keeper; the balance, Rs. 2,112, is the cost of collection, for which purpose 26 persons are employed. It follows that 17·6 per cent. of the income is absorbed in collecting it, which seems a large ratio.

The conservancy establishment consists of 48 sweepers, 12 one-bullock carts, and 28 donkeys with drivers, and the work of collecting and removing impurities from all parts of the town site is thoroughly effected at all times. I walked in all parts of the town, and more than once all round its outskirts, without finding any place within the town site where this important matter was neglected. The sweepings are taken to places well outside the town.

Six public latrines have been established in the outskirts of the town on all sides. They are good sized enclosures without roof—cells within provide the necessary privacy, and I think this open sort of place is best suited for the purpose in question.

Those I examined closely were noticed to be bad-smelling places, with much of moisture about and within the cells, and dry-earth is not used, as it ought to be, by the attendant sweepers. Many people frequent these places, and they are worthy of better management; but very many people retire to waste places around the town site as in days of old, yet further off and in more secluded places than these. The impurities collected in the latrines are carted away to a waste piece of land outside the town northwards, and are there buried in flat trenches. I saw that this was really done with success and properly, a new trench for each day.

258. The site of Futtehpore is level, almost low; and to provide building material for the houses, the site around the town, and at one place also within it, has been excavated to an extraordinary degree.

The result is that a very great amount of rainfall stagnates around the town on all sides. I estimate that there are not less than 30 large excavations and 20 smaller in and around the town, but what is certain is that a string of water-holes closely hems the site everywhere, excepting at a narrow portion of the southern border, which is the raised site of some former village, or khera.

In times of great rain these water-holes overflow and flood the town in some parts; but in all the seasons of rain, and long afterwards, they encircle the town with stagnant water of really considerable surface, which is a state of things hurtful to the general health. And the great requirement of Futtehpore, from a sanitary point of view, is improved drainage.

None of the excavations alluded to are shaped in any way, they are just ragged water-holes, with much of broken ground about them, and altogether the outskirts of Futtehpore form a miserable region, which much calls for improvement.

259 There is no river anywhere near to Futtehpore, but about two miles east of it there is a shallow natural drainage way (or khallur), which is called Susoor Khuderee, a commencing branch of the Burra Nuddee which enters the Jumna near Raipore Bhusroul. If the Futtehpore site can be drained at all, it must be to the Susoor Khuderee, the belt of which is certainly some feet lower than the general surface of that site. During the past year something has been done in this direction by the making of a deep cutting from the easternmost excavation, called Chundee Talao, along the course of the Grand Trunk Road to the Susoor Khuderee; but I noticed that the bottom of the cutting where it enters the Susoor Khuderee, is a foot lower than its dry bed; and when that bed has several feet of water in it in the rains, I should think the cutting would be in some measure inefficient. However, this is undoubtedly an endeavour in the right direction, yet I do not believe that the site can be drained or in any way improved as regards the health of the people by a cutting which commences at the bottom of an excavation. A cutting so made will silt up very fast.

To recover the site to a good sanitary state, it is necessary to raise the general surface to its former level, to bring the rainfall to certain selected centres, and drain them from or near the top,—that is, to create well shaped tanks to hold as much water as may be desired, but never to overflow, excepting by the drainage channel to the Susoor Khuderee. Of course this cannot be done without plan, without labour, or without money. But it can be done undoubtedly by properly directed effort extending over some years, and every move in the direction indicated will help to the desired end. Thus it is essential to determine where the reservoirs or permanent tanks shall be, and then to proceed with the levelling of the broken site remaining, for which purpose brick-kiln heaps and abandoned saltpetre mounds of great extent may be found, and the khera before mentioned would provide a great supply of earth. This khera, as it now exists, blocks the drainage way on the south side of the town, so that when the great excavation west of it overflows, the water pours across the way of entrance to the town from the civil station, to reach the excavations on the north side of the town—sometimes water deep enough to float a boat lies on that way immediately inside the town. The permanent tanks need not be built in any way, but made deep, and shaped either round

or square, and their margins should be planted with trees. Draining from the top (at the most convenient place)—that is, from a little below the general surface of the country, I have no doubt that the overflow could be made to run to the Susoor Khuderee without any necessity of a deep narrow drainage channel.

KHUJWA.

260. The Grand Trunk Road, after leaving Futtehpore town, slants in a northerly direction to go direct to Cawnpore, but the ancient highway to Agra continues in the centre of the Doab, and the comparatively important towns of Bindkee, Khujwa, and Kora Jehanabad are upon it. Khujwa must at one time have been a town of more importance than Futtehpore. The old road passes through the centre of it, and is its principal way. The centre of the town is taken up by a great serai of Alumgeer's time,—one of those grand lodging places provided for the comfort of travellers, which contrast so remarkably with the indifferent accommodation as yet provided at the more frequented halting places on the railroad.

261. Commencing from the east, the main way passes an old Badshahee tank of great size,—once fine, with brick-made sides and corner towers, now all gone to ruin, the bed dry. In connection with this tank was a great walled garden, in which an indigo factory was established some 25 years ago. Judging by the extent and goodness of the masonry reservoirs or vats there now, this must have been an extensive concern. But the undertaking has been abandoned for many years, the vats stand empty and idle, and the garden is cultivated as khets. Beyond the garden the way continues—well made, neatly kept, with drainage cuttings on both sides—through the eastern portion of the town to reach the great gate of the serai. The principal inhabitants here are makers of brass vessels, for which Khujwa is rather famed. In all there are some six or eight places in this eastern quarter where these vessels are made, and they are exported to other towns of the neighbourhood. The gateway of the serai arches the road; its fine wooden gates, now thickly studded with horse shoes—great and small—look as serviceable as when they were put up. Inside, the fine square is bounded on all sides by masonry lodgings for travellers, providing a deep verandah room and an inside room for 122 separate families or persons.

The surface of the enclosure is well levelled, but drains in the centre towards the south side, where an exit for the water is provided; good trees shade the ground, which is well kept in every way, and this is certainly one of the finest serais in the province. But, from the altered course of the principal highway of the country, very few travellers frequent it now, and the wealth of accommodation is in greatest measure wasted.

262. The main way pierces the centre of the serai to go out at its western gate. Beyond this gate shops line the way to form a bazaar of poor appearance and little extent, the open country being soon reached. Where this commences, there is a very fine tank called "Boodhya," after an old widow of a mahajun who spent all her husband left her, some Rs. 83,000, in building this tank and its attached temples. Good water coming from the land north of the tank is directed to it, the rainfall drainage of the town site being excluded. Its sides are made with stone; many steps lead down to the water, some fifteen feet in depth when I saw it; trees shade it all round; and this tank is of great benefit to the townspeople, and a source of health to the large number of bathers who frequent it.

263. Besides the main way there is a way of some importance called Shuklun Gullee, which commences from the main way east of the serai gate on that side, and winds through the northern quarter of the town to return to the main way at the Boodhya tank. Indeed this is the old bazaar way of the town, of no importance now, but showing by the fine houses which neighbour it that it was important once. Indeed Khujwa throughout contains many comparatively fine masonry-built houses, many Brahmans and

Bunniahs live there, and there are not less than 100 temples of sorts in the town, many very good. It is essentially a town of Hindoos, very few Mahomedans living there. It was famous for the manufacture of bows from the mid-rib of the leaf of the date-palm, extensively cultivated in former days in and about the town, and the town it is believed is named Khujur perhaps for that reason. Kudjooa is the spelling of the maps. Now there are very few trees of this kind about the town (and no bows are made), but many of better kind for purposes of shade mix with the houses, and the general aspect is that of a quiet Hindoo town of the better sort.

264. The southern quarter of the town is mostly a part of mud-built houses, the residences of cultivators, and in that direction, at a little distance from the serai on that side, there is a large unshaped excavation called Ranee Sagar. The surplus rainfall of the town site drains to this Sagar (sea), which then becomes a very large expanse of stagnant water. Its overflow, however, passes away to the Rind Nuddee, which flows four miles westward of the town.

265. A house-tax, realizing Rs. 85 per mensem, is raised in the town, of which Rs. 55-8-0 is expended for chowkeedars and bukshee, and Rs. 16 for five public sweepers. These sweepers are employed only for the conservancy of the serai and main way, which they keep in very good order.

In all other parts of the town conservancy is, as a rule, neglected. The 34th Section of the Police Act is not in force, and consequently the police authorities there do not endeavour to enforce a condition of general cleanliness throughout the site, nor is the boundary of the inhabited site in any way visibly defined.

266. The police office is on the main way, in the eastern outskirt, newly built and good in every way. The lock-ups especially good, commodious, and well ventilated. The mortuary records were found well kept and properly preserved.

267. The northern outskirt is at one part a region of excavations, the land broken by much digging, and it is frequented as a public latrine place. A roadway passes through this part, of bad aspect, to reach certain tanks beyond, especially one good tank dedicated to Ram Leela, which is terraced and contains much water. It was said to have been dug as a relief work in 1837-38.

268. Although, from the drainage communication with the Rind Nuddee, the town site is never subject to flooding, yet it is by no means well drained, and much water stagnates in and about the town in the rains, giving rise to much discomfort from mud in all the unmade ways, and probably ill-health also. Some endeavour is being made to remedy this by the making of a new drain through the Shuklun Gullee, which may result in good for that immediate part. But the drainage of the northern side of the town, if permanent good effect is desired, must be directed to the ruined Badshahee tank, which is in connection with the Ranee Sagar by means of two culverts beneath the highway there.

269. Although Khujwa is not a prosperous town, it has nothing of a poverty-stricken appearance. Houses in ruins are uncommon, and the people appeared to be fairly well off as a rule, some evidently rich; and with its fine serai, numerous temples, and many good houses, it seems a place well worthy of attention.

Especially as regards a more perfect drainage for the removal of rainfall, the establishment of perfect cleanliness of the site everywhere, the fixing of the retiring places at some further distance from the inhabited site, and I think the little marketplace which opens off the bazaar, called Terkaree-ka-mundee, very much calls for improvement, which might be easily effected.

Best of all would be the bettering, in such measure as may be possible, of Ranee Sagar by planting it about with trees, and by perfecting the drainage way from it to the Rind. But that is an important undertaking. The smaller ways in the town much require repairs, which cannot, however, be well effected until the site is better drained generally.

270. The school-house at Khujwa has been established in the serai; five of the separate accommodations there having been thrown into one for this purpose, a very good School-house results; sixty boys attend the school, which was noticed to be admirably kept in all respects.

BINDKEE.

271. In regard to trade, Bindkee is the most important town in the Futtehpore District. A line drawn from Chilla Tarra Ghat on the Jumna, straight north to the Mohar railway station, would fall upon Bindkee at a distance of about six miles from the station. A kunker-made highway joins the ghat and the station, passing the town immediately to its eastern outskirt, and Bindkee is a principal emporium for surplus produce of the country across the Jumna. Ghee especially, the produce of the herds of cows in the southern parts of Banda and Humeerpore, is brought in large quantities to Bindkee for transmission to Calcutta and Bombay and other great cities by rail. Much gram and grain of all kinds is also brought to Bindkee for the same purpose, and the products mentioned are properly packed for the journey by rail at Bindkee.

272. Old Bindkee stood upon the ancient highway which runs from Allahabad to Agra, almost in the centre of the Doab. In recent times this roadway has been improved, in parts made with kunker, as for instance between Bindkee and Jehanabad; and so it follows that Bindkee now stands at the junction of four highways centering from Chilla Tarra, from Mohar, from Futtehpore, from Jehanabad, to the great encouragement of trade in the former town.

273. The town of Bindkee is made up of 11 separate mohullahs, or portions, divided, the one from the other, by cultivation or open space—more or less extensive. But all of importance the town possesses is centered in one portion, called Bazaar Bindkee, which is a Gunge containing 350 shops. The other ten portions are variously named, and are more like separate villages than parts of one town. Yet they form in some measure parts of one centre of population, which contains in all 1,330 houses, and I think the inhabitants number more than 5,000, although Bindkee is not included amongst the towns of 5,000 inhabitants in the census statement.

Of the ten less important portions, Munjha Gullee is the only one which merits notice. Its houses line the roadway to Jehanabad, which here, however, is low, and drains in the centre. It contains several good houses of mahajuns. The police office is here,—a poor mud-built place, but well kept. The mortuary records were seen to be in good order, and written up to date. There is an important well in the centre of the way, the surface about which is quite undrained, much mud resulting. The water, 45 feet from the surface, was said to be very good.

Opposite the police office is a large excavation containing much water, and in great part encroaching upon all the northern outskirt of Munjha Gullee.

274. Bazaar Bindkee, or the Gunge, stands in the angle between the northern highway to Mohar station and the western highway to Jehanabad. It is an oblong square of perhaps 300 by 250 yards. Its houses, so arranged within as to form a high mud wall to the outside face on all sides, so that it has something of the appearance of a mud fort. It is entered at four different places, which are called gates, but have not much appearance of such. Inside the space is cut into streets, dividing blocks of mud-built houses and store places, and through the centre from east to west there is a wider way, something like a market-place, which at the time of my inspection was in good measure filled with paraffine oil tins and beer casks, into which ghee was being transferred from the skin vessels of the country people, or with heaps of grain of various kinds to be packed into bags for transit by rail. So in all the streets, and houses of the Gunge something of the same business aspect presented itself, many busy people being gathered in the Gunge everywhere. As ghee was plentiful, and sometimes a little spilt about, so pariah dogs abounded,—rather ferocious brutes, of

which I think I saw about a hundred, mostly in the main way of the Gunge, hunting for ghee everywhere, and pouncing upon the besmeared vessels almost before they were empty:—troublesome, useless brutes, fighting and licking in troops of four or five together, to the general discomfort and hindrance of work. Indeed I have never before seen anything approaching to so much actual discomfort from this cause in an important business centre such as this Gunge is. Bindkee Bazaar or Gunge is a comparatively new place, having been founded only about 60 years ago principally by bunniahs who came from Mirzapore; the surrounding houses, which form the mud wall, were built only 34 years ago, and in those days it had to struggle for success against Zufferabad, a market town four miles south of it, which was more important. But only during the past seven years, that is, since the new highway from Chilla Tarra to Mohar has been completed, has the Gunge flourished as it is now seen to do,—flourished indeed, so that Zufferabad has almost no trade at all.

And the Gunge indeed shows ample evidence of its sudden rise into importance,—a rise which has not been accompanied with anything at all of good town management or improvement. No roadway in it is made or drained; its open surfaces generally are low and broken; thick-lying dust covers them pretty well throughout. The shops and store places, though capacious, are poor looking, mostly mud-built, and but for a few good trees the whole place would look miserable in the extreme. The surrounding wall is much broken, apparently going to ruin; the entrance gateways, excepting one, are little better than broken gaps. This better gateway, poor enough, however, communicates with the highway by a narrow kunker-made road, which commences at the south-east corner of the Gunge, to end near the point where four highways meet. Along this narrow roadway, and upon the open plain which surrounds the Gunge, the most important weekly general market of the Futtehpore District is held. The local estimate was that an average of a thousand carts laden with produce of one sort or other attend each market. This may be an exaggeration, but it is certain that this market is most important, and Bindkee is famous also for its weekly bullock mart, which is held in the open plain between the eastward Gunge wall and the Mohar high road. The open surface on the southern and western sites of the Gunge has been a good deal excavated, and is now frequented as a general public latrine place. The ground there was seen to be very filthy,—a general disreputable and altogether disgraceful region, which much calls for improvement. Many strangers, beoparees, traders, agents, and country people come to Bindkee, some of the former from so far even as Bombay. As yet no good serai has been provided for them, no order established with reference to their places of retirement, and the principal men of the Gunge were of opinion that the shallow excavations near their walls were in greatest measure made unpleasant by these strangers or casual visitors.

275. A house-tax is levied at Bindkee, and realizes Rs. 100 per mensem. From this fund five public sweepers are provided. I think they confine their labours to the Munjha Gullee way, but I cannot say exactly what they do; certainly they do not effect a good condition of cleanliness anywhere, or seem to do anything at all in that direction for the Gunge or its neighbourhood. Pigs roam in the excavations there, and are the scavengers. Certainly the Bombay people who come to Bindkee, if they think at all about it, must have a poor idea of the management and general appearance of the place: and indeed it has the appearance of a place where many men are struggling to make money, but not caring one iota to make life happier or their place of abode more healthy and respectable.

276. It is quite certain that something ought to be done to improve this place. But I had almost forgotten to mention that outside the Gunge, at the border of the narrow road, one Burmee Baijoo, thirty years ago, made a fine tank 80 yards square, with terraced sides, which contains 18 feet in depth of water. This tank is the one redeeming feature of Bindkee, and but for it the many bullocks brought to the market would have a hard time of it. But Baijoo provided a sloping way to the water's edge, and all the

bullocks drink there. It is not unlikely that the popularity of the bullock mart is in greatest measure due to the existence of this tank.

Since Baijoo's time nothing further seems to have been done to improve the place, and now the outlook from the principal gateway of the Gunge is dreary, by reason of very unwholesome and entirely neglected excavations there.

277. The principal inhabitants of the Gunge readily allowed that the place was not properly managed, as of course it never can be while only five public sweepers are employed, for the site is too extensive to be kept in proper order by so few of these useful servants. Perhaps here there may be a difficulty about supplying the funds necessary to provide for a better conservancy and other very necessary improvements.

278. As my inquiries and observations pointed clearly enough to a possible establishment of a better order of things, which would necessitate increased expenditure, the people interested expressed some fears lest they should have to bear the incidence of an octroi. They were strongly of opinion that the existing prosperity was due in greatest measure to the fact that no tax of that kind is levied, or any hindrance to free trade existent. That Bindkee, as one of the few places of considerable trade now left untouched in that way, was very attractive to buyers and sellers, and for this reason would prosper yet more. Indeed there is a considerable demand for building space in the Gunge, which is likely before very long to overflow its present limits.

This town, however, is not a suitable place for the establishment of an octroi. It is essentially an emporium for the temporary storage of country produce—cotton, ghee, grain; and it would not be easily possible to keep separate account of imports consumed in the town, and imports brought only for preparation for a foreign market. Perhaps the thriving bunniahs and others might be able to pay something by way of license as at Cawnpore, and a small sum might be exacted from the seller of each bullock in the mart, and in this way a fund provided, sufficient to set on foot, and, as years pass, complete, the necessary sanitary improvements which are denoted in this report, sufficiently plainly to excuse repetition.

279. I think the 34th Section of the Police Act might be brought into operation here with perfect justice, if only a local authority of sufficient importance resided there to administer it.

Unfortunately the tuhseelee, which was at Bindkee, has in recent years been removed to Kullianpore, a village of no importance on the Grand Trunk Road, four miles north of the town.

280. I think a capacious and carefully managed public latrine enclosure for the use of strangers might be established here with advantage. Certainly the limits of the inhabited site should be permanently defined, so that the people might know unmistakably how much of, or to what extent, the site must be respectably kept and honorably considered.

CONDITION OF THE TOWNS OF THE ALLAHABAD DISTRICT.

281. The towns of the Allahabad District of more than 5,000 inhabitants are:—

				Population.
Allahabad City,	...	...	...	143,693
Mow Aymah	...	...	...	6,189
Phoolpore,	...	...	...	5,000

ALLAHABAD CITY.

282. Allahabad city proper covers an area of about a square mile; but the municipal limits include an area of many square miles, perhaps not less than twelve or thirteen. This municipal area, considered as a whole, is by far the most important centre of population in these provinces. And its importance increases as the years pass. New sites continue to be occupied, and the wealth in house property must be becoming very great indeed. The native population of this area in 1865 was 105,926; in 1872 it had become 143,693. It must not be supposed that the Allahabad city contains so many people, for the population is gathered principally into four separate centres: the city; Kidgunge with Moteegunge; Daragunge; and Kuttra with Colonelgunge.

In this report I propose to write of the city only.

283. The railroad crossing the Jumna passes northward with a gradual curve to the west to reach the centre of the narrow doab of which the municipal area consists, and in doing this it cuts off the true city site from the rest of the area; so that the city site may be well defined as lying within the curve of the railroad, which bounds it to the east and north, land much broken by ravines bounding it south and west. For the city does not extend to the Jumna, a very considerable breadth (almost a mile) of broken land intervening. So that really the site of crowded houses and business aspect does not cover more than about a square mile, as I have said. The most important square mile of the Allahabad area no doubt, and most of any worthy of attention from the municipal authorities, for I should think that between 50 and 60,000 persons live in it.

284. The main way of the city passes from east to west, being the continuation of the Grand Trunk Road. It pierces the city about the centre, and through its longest diameter. Coming in from the west, it first passes through the Khoordabad Serai, which in late years has been converted into an important and busy bazaar, now called Mundee, fine shops lining the way there. As it continues eastward in places, it has a quieter aspect, but as a rule it is lined with shops from end to end,—good shops, in brick-built houses, extending for a length of considerably more than a mile. From the north two principal branches come down to meet it,—one from the railway station, the other the continuation of the city road from Kuttra. Both these ways are remarkably broad, but the latter is especially noticeable in this respect. It is called Johnstongunge, and is, I think, the widest and finest roadway of any city in this province; a broad pavement for foot passengers bounds it on both sides, the brick-built houses on it are good of their kind, and have been lately improved generally. About its place of junction with the main way it opens out to provide space for a handsome Kotwalee and a remarkably good market hall. This last is a building of unusual kind,—I think the only market hall in the province. It is a permanent structure, the roof carried on iron girders, a roadway runs through the centre, and the floor on each side consists of stone slightly raised. It is divided into three principal portions, each having a common floor. The outer face on three sides is let to traders of different kinds, principally cloth merchants, and one of the inner portions appeared to be occupied by fruit sellers and dealers in small wares or hawkers, but the remaining portions were empty and silent. I think an open surface held in some measure in common with others is not likely to attract respectable tradespeople in this province, and that, if it is desirable to let all the surface, some-

thing of boundary or partition will have to be permitted. At present the rents realize Rs. 2,800 a year, or about two and a half per cent. on the cost of the hall, which is a very good commencement, but will not prove successful as a continuance. Beyond the market hall, a new police office is approaching completion ; it is a durable masonry structure of good appearance. And altogether the Chowk of Allahabad, as this part is called, presents an appearance of importance and improvement which argues well for the future of the city,—pretty sure to become the most important in this province as years progress. For Allahabad is undoubtedly the centre of Railway communication in Northern India, with perhaps the busiest railway station in the country. Rivers converge to it; great roadways come into it from all sides. It is the seat of Government, with ever increasing population and busier aspect.

In the southern portion of the city there is another wide kunker-made way which runs generally in a line with the main way, and communicates with it by short bazaar ways; but this southern thoroughfare has not the same appearance of importance as those already mentioned.

285. The site of the city is fairly well raised, by comparison with the land which divides it from the Jumna. The houses of the central mohullahs are often large brick-built structures, and indeed in almost all parts of the city houses may be found of such importance, and in such good repair, as to witness to the existence of a great number of prosperous residents. In places, and especially in the eastern portion, there are large collections of mud-built houses, also as a rule in good repair. Ruinous houses may be found, but they are very uncommon, and empty house sites are hard to find. The houses, brick-built or mud-built, are set very closely together, for the site is limited as I have described ; and in regard to publ ic thoroughfares, Allahabad may be characterized as a city of a few most excellent and very capacious main roads and many narrow lanes of intercommunication.

286. The main roads, I need scarcely say, are raised, well made with kunker, and properly drained at the sides, and five in all of the narrow lanes have been paved with stone flags laid down with a slightly arched surface. This has been very well done, with an altogether astonishing result of improvement, as contrasted with the miserable appearance of the surface of the unmade lanes generally.

These finely paved lanes lead, as a rule, past the houses of the more important residents who have contributed half the cost of the improvement, and of all the things yet done to improve the city, I think this has been most acceptable to the inhabitants. At the inspection of which this report treats, I noticed that this valuable and very sensible endeavour was being continued at three separate places, and especially at a place in the Goojeratee mohullah, where the surface round-about a much frequented well, and the lane which leads up to it, are to be p aved in this way.

Some lanes are paved, in the old-fashioned way, with brick, forming a wide shallow drain down the centre of the lane, espe cially in the Meergunge and Pandareeba mohullahs. And following such lanes, as a rule, it may be noticed that the central drainage way is much broken into holes containing filthy water, its termination being at a place where much of filthiness has accumulated, being the sweepings of the drain left to dry up.

But by far the greatest number of these narrow ways of communication are quite unmade, so that in the rainy season the surface softens into mud, of considerable depth in some places, to the general discomfort, of which I heard much complaint.

287. This is due in greatest measure to imperfect drainage, which chiefly affects the half of the city north of the main way, or Grand Trunk Road. The natural drainage inclination of the whole site is southwards, towards the nullahs which lead down to the Jumna there, and the southern half of the site is drained of excessive rainfall very effectually by them. But the drainage of the northern half now drains to the Gunda Nulla, which runs through it from west to east, to end in excavations in the eastern outskirt, which owe their present extended surface to the operations of the Rail-

way Engineers. When these excavations overflow the water drains away into the khadir lands below Daragunge, where there is a syphon drain to carry the water through the embankment which keeps the Ganges out. But the syphon only acts where a great accumulation of water has filled up the angle of land defined by Akbar's bund and Daragunge.

At two places drainage way has been provided beneath the main road, and by them a certain amount of the excess of rainfall flows away to the south, which is its proper course. But the Gunda Nulla, with its imperfect termination, is the most important drainage channel of all the northern half of the ity site, and such drainage operations as have yet been undertaken are directed to it. To drain all the city site thoroughly and effectually to the southern nullahs should not, I think, be a very difficult undertaking, for the land is much broken into ravines there, some of which enter the southern border of the city, and the bed of these ravines is many feet lower than the city site.

At some places where these ravines commence, and especially in Aheeapore mohullah, a very considerable collection of stagnant impurities, being city sewage, was noticed, giving rise to much of unpleasantness, and being the only places of really horrible nuisance I could discover within the city precincts.

288. The municipal income at Allahabad is about Rs. 1,90,000, of which, during the current year, it is in contemplation to expend Rs. 30,000 in original works, namely, Rs. 15,000 contribution to the "Mayo Memorial Hall;" Rs. 10,000 for a new police station in Cannington, the new civil station; and Rs. 4,500 for paving the city lanes.

Rather more than a fourth of the total income is expended on conservancy, or Rs. 50,000. Of this sum Rs. 19,871 is expended for the conservancy of the city and suburbs, which is not by any means an exorbitant sum for the purpose indicated. Rs. 50,000 is no doubt a very large sum to be expended for the conservancy of any one place; but, as I have already explained, the Allahabad municipal area is also very large, and the municipality undertakes, and really effects in fairly creditable fashion, the conservancy of the whole area. It is the conservancy of the new civil station, with its widespread area, which absorbs the greatest share of the conservancy expenditure, and I am not at all sure whether the residents there ought not to be specially taxed for this great and, to them, all-important undertaking.

289. The conservancy of the city does certainly receive a great amount of attention. A company of 224 persons are employed in this work; 56 carts are in use, many of which are made of iron throughout on a very improved plan; 34 public latrines have been provided in and about the city. They consist of a double row of cells, the roof raised, so as to leave an opening above. The entrances are properly screened, and, as a rule, they stand in open places well removed from the surrounding habitations. These places are absolutely necessary in a crowded city, where the requirements of the 34th Section of the Police Act are exacted, as in Allahabad. Those I examined seemed to be well managed, with nothing particularly unpleasant about them. I noticed that dry-earth was in some measure mixed with the impurities, and that the conservancy carts were ready placed to receive them. Some of the more lately constructed public latrines are built of bricks and lime. I think experience will show that mud-built places are better for this purpose. One thing is certain, that if dry-earth is plentifully used, and the use of water to wash down the receptacle places forbidden, this difficult business can be effected with the least amount of nuisance. The contents treated with dry-earth, the carts may go anywhere without betraying the nature of their burden. It is the neglect of this simple method of remedy which makes the carts employed in the Allahabad civil station so very offensive.

The surface sweepings of the city are removed daily in carts to the brick-kilns in the neighbourhood of the new gas-works due east of the city, and are used as fuel; the latrine sweepings are taken in the same direction and buried in pits, about five feet deep, dug in waste land there, neighbouring ravines. This of course is a great

mistake, as they should be buried in shallow trenches as manure for land under cultivation. But the municipality have no land of sufficient extent for that purpose.

290. The city site, with the exception of the commencements of the ravines in the southern outskirt, was seen to be remarkably well-kept everywhere. I have no doubt that, within the houses, places might be found which do not answer to this description; but in all places, easily accessible, a very commendable condition of cleanliness prevailed. Now and again, as at the termination of drainage channels and in the wide waterway beneath the pavement of Johnstongunge, neglected impurities were seen to have accumulated. But this was a very exceptional circumstance. And especially the line of the Gunda Nulla, which used to be noted for its filthiness, was found very properly kept indeed.

291. The management of the city is in great measure in the hands of three native gentlemen, who are Honorary Magistrates and can punish disobedience to the rulings of the Police Act before mentioned. The conservancy arrangements are in the immediate charge of Syud Liakut Hossein, the City Inspector of Police, who seemed anxious about the reality of the work done in this direction, and rather desired to show me neglected places than otherwise.

292. The city site is not a place of excavations, as from its situation near to ravines it is not likely to be. In the Chuk mohullah there is an open space of small extent of this character,—a place of shallow excavation which must lodge rainfall, but it appeared as a dry, clean, hollow surface which might easily be levelled. To the extreme northern outskirt there is an excavation of large extent of old standing. It also was found in good order. Further north of it, again, there is about the largest excavation I am acquainted with in the neighbourhood of a city. But the city people have had nothing to do with its formation. It was made by the Railway authorities when they wanted earth to raise the surfaces of the station property. It would have been a very wise and altogether reasonable ruling to have required that the extensive digging of those days should take the form of a shaped tank, for now it is a vast ragged undrained hole, which ought not to exist in the neighbourhood of a city.

293. Cesspools, which are open to the narrower public thoroughfares, are common in the city. Many of these receptacles contain impurities of long standing, and they are often a cause of nuisance in the smaller streets. But this trouble is certainly less now than formerly, and I noticed that the owners of these places are now more anxious to hide them or cover them with a curtain of sacking or otherwise. These cesspools ought not to exist at all, for the householders ought to make arrangements for the daily removal of the impurities they contain. If, from long habit, or from general apathy in regard to this matter, they are disinclined to make such arrangements, I think the time has arrived when at least the householder should learn that he cannot with propriety make his cesspool to open on to the public way. These places are often a nuisance when the contents are at rest, but while they are being emptied, which is pretty often, a very great nuisance results,—a nuisance which neighbours and passing strangers experience in greater degree than the inhabitants of the household concerned.

294. I believe it is in contemplation to furnish this city with a system of drainage by which fluid impurities and excessive rainfall shall be carried into the Jumna. In connection with this subject, it is necessary to record my opinion that permanent success in this matter will depend entirely upon a continuous flow of water through the main channels of the system,—a flow which need not be deep or very rapid, but must be continuous. A flush, or intermittent flow, will not suffice. In the European cities this continuous flow is maintained by the excessive use or waste of water in every household; but in the Indian cities of the upper country, where men draw water in brass vessels from wells, and think a pint of water amply sufficient for the daily ablution of hands and face, no such flow can be expected,—and then sewers become recep-

tacles for impurities so plentiful that even the great flushes of the rains will not carry them away.

295. A very considerable sanitary evil in the Allahabad city, as in all cities of this province, is the entire absence of urinal accommodation. Even in the public latrines the urine collected in vessels is thrown into a pit dug for it near to the latrine. But no person thinks of going to those places for such purpose only. Any open spot, a little out of public view, is considered a good enough urinal. Taking the population to be 60,000, the result of this arrangement is that not less certainly than 3,000,000 gallons of urine yearly must find its resting place in the soil of the city site. The air of a site so utilized must of necessity contain impurities, and, I need scarcely add, that air is the most necessary food of man.

The underground waterways which I have described would offer a ready means of remedy against this evil, and I think public urinals in sufficient numbers, placed immediately over the running water, should form part of the scheme in contemplation. If properly constructed, to suit the habits of the people, they would be much valued. I am constrained to repeat that the flowing water is the essential of success in this matter. From long experience, those who are best acquainted with the cities of this country, have come to look upon sewage as black, bad smelling, filthy abomination, because they always see it in that form, and sewer is a word of bad repute. But if the word sewer could be made to have the significance of conservancy waterway, all this would be changed, and sewage would be found to be a more or less turbid fluid with hardly anything of bad smell or unpleasantness.

Concerning urinals for present use, of the necessity for which I heard much complaint, I think something of temporary accommodation should be provided in selected places in the city, as it frequently happens that persons are suddenly obliged to answer this call of nature, and, doing so, render themselves liable to punishment. Perhaps receptacles, such as casks mounted on wheels, might be provided; but certainly some reasonable provision should be made for the decent performance of this necessary act.

MOW AYMAH.

296. Mow Aymah is a town of 6,189 inhabitants in the northern part of the Allahabad District, close to the border of Oudh. It stands on the eastern border of the kunkur-made highway which connects the town of Fyzabad with the city of Allahabad,—but at some little distance from that highway, and very little of the town is visible from it. The entrance way from the high road is low and unmade, but it is to be raised and made soon, the kunkur lying ready for making it. It is a town of little importance, but its site is extensive and generally low. There are about 60 or 70 masonry-built houses, the remainder are mud-built, and they are scattered without much of order in the more extensive eastern portion of the town. One important mohullah, called Chumroopore, stretches out towards the high road, and the way of entrance winds through it.

297. Chumroopore is inhabited principally by weavers, who were formerly a flourishing community, but now they are very poor, yet certain native cloths which find a sale in country market places are still made here, and I have seen hawkers selling them on market days in places far removed from Mow Aymah. So the weavers manage to live, but make no appearance of prosperity, and many vacant house sites show that some of them have emigrated.

298. The eastern portion of the town, or Mow Aymah proper, appears to belong in great portion to Sheikhs Ameen-od-deen, Nusur-ood-deen, and Sudr-ood-deen, important zemindars of the country about Mow Aymah. The first especially is apparently master in the town, and nothing of change or improvement can be done, I should think, without his permission. He, his people, and dependents live in the bet-

ter class of houses on the only well raised part of the site in the north-eastern quarter of the town, and, excepting the goodness of the houses of these important residents, there is nothing about Mow Aymah proper to commend it to notice,—no made road exists there, and only a few poor shops lining a way which leads from Chumroopore to a small market place.

299. Chumroopore is better off in this respect, as the main way, where it winds through this mohullah, is made with kunker, and at one portion, called Fyazgunge, it is lined on both sides by new brick-built shops furnished with verandahs. This was expected to have become a good bazaar, but unfortunately Fyaz Alli, a vakeel, who built it, died in December last, and the bazaar has never been properly tenanted, and looks as if it would soon go to ruin. Perhaps so good a bazaar is not required at Mow Aymah, which is not a place of business, but just a quiet country town, once rather noted for its weaving, now inhabited mostly by people who look to the land for support.

300. There is a poor-looking, but sufficiently extensive, serai at a corner of the entrance way in Chumroopore; a rather miserable-looking school-house in the eastern outskirt, ill-kept, and attended by only 32 boys, some learning English; a Gola or Gunge, as it is called, in the eastern quarter, which is, however, mostly utilized as a place for storing russud; and a small market place near to the latter. The weekly market is important, and many people assemble in the town then, and bullocks also are brought for sale in good numbers.

301. The police office is not enclosed, and the lock-up is a mud-built cell. The mortuary records were found well written up to date and properly preserved.

302. A house-tax, realizing Rs. 1,500 a year, is levied at Mow Aymah. It has been lately raised to that amount from Rs. 800, and I heard much complaint of the increase, which the people bear with difficulty and speak of as an unexpected hardship. Seven public sweepers and nine chowkeedars are employed in the town, their wages being Rs. 660 a year. Probably the increase was required for the making of the way of entrance, which is to cost Rs. 850; when that is completed, I think it would be wise to lighten the incidence of the tax, for certainly I have not heard, ever before, a complaint so earnest and general on this subject.

303. The drinking water in the town wells is very good, and the people, who are in greatest proportion Mahomedans, consider the climate good. The town site was found fairly clean everywhere, and no manure heaps were seen within the inhabited site. Much cultivated land intervenes between the different mohullahs, and the sweepings are utilized as manure for it.

304. In the south-eastern outskirt is a large excavation, being a water-hole, useful as a drinking place for cattle; there is nothing very objectionable about it, but it might be greatly improved if the smaller excavations and broken surface about it could be levelled. And there is a second excavation of the same character in the outskirt north of Chumroopore. Cultivation hems the inhabited site closely everywhere, and the public retiring places are amidst the crops and on the further side of the excavations. No unpleasantness from this cause could be found anywhere within the abadee, for, as usual, where Mahomedan influence prevails, the custom of retiring to a distance from the houses is well established.

305. The site, being in most part low, is much saturated during the rains, so that the ways become impassable from mud, and this state of things has become intensified in late years owing to the bunding (embanking) of the natural drainage way by the zemindar of Kuttra, a village two miles from the town. This drainage way is a commencing branch of the Munseyta nuddee, and I think its improvement would be a measure likely to benefit the people of Mow Aymah. For the rest, if the town can be kept as it now is in regard to conservancy, the way of entrance from the high road be made, I think it will have obtained a fair share of attention as a commencement. The sanitary requirement is a free and permanent waterway for surplus rainfall which stagnates about the town, and is a cause of much trouble and, doubtless, ill-health.

PHOOLPORE.

306. Phoolpore does not appear in the census statement as a town of 5,000 inhabitants, which may be due to the fact that the populations of old Phoolpore and Jafergunge, two separate mohullahs, were separately stated in the census returns. I think there can be no doubt that Phoolpore contains more than 5,000 inhabitants, for the local statement was that it contained 6,000 people, and consisted of nearly 2,000 houses. Certainly it is a large town and of some importance.

307. Phoolpore stands on the high road which connects Allahabad city with Jounpore, and, after Allahabad, I count it the most important town in the Allahabad District, which indeed contains very few places fit to be called towns. The map shows many places which might be supposed to be towns, as Kuralee, Serai Akil, Chail, Nawabgunge, Soraon, Secundra, Hundeea, and Sirsa, all of which I know pretty well. But they are large villages of the better sort, which indeed have in some instances been much improved in the past few years by a better conservancy, but they are not in any respect important centres of population.

308. The Jounpore high road divides Jafergunge and old Phoolpore, which are to the west of it, from new Phoolpore, which is to the east of it. The two first mentioned are separate mohullahs of some extent and comparatively old. They are mostly inhabited by Mahomedan cultivators living in good sized mud-built houses, and are quiet village-like places. New Phoolpore is the important part of the town. Its site is widespread and low, as regards the public ways and unoccupied surfaces, although the actual house sites are pretty well raised, artificially no doubt.

309. One public way traverses the town from north to south, and a second from east to west, forming a Chowk, called Chowraha, about the centre of the town. A much frequented well marks the centre of the Chowraha. The most important of the four ways leading from the Chowraha is that which goes westward to reach the high road. Near to the Chowraha it opens out into an oblong market-place of little extent, but lined with shops, a line of which also fill the centre of the space.

The shops have fronts of carved wood and are of some importance, the market-place presenting a rather busy appearance.

310. The bazaar continues westward as a fairly wide way for some distance, lined by poor-looking shops and leading past the school-house, it bends southwards to reach the high road. This bazaar way has recently been raised and made with broken brick, so that it drains at the side, and altogether this may be considered a fairly important street which has been much improved since I first saw it some years ago. The three remaining ways from the Chowk are fairly wide, but unmade, their surface very low and undrained. Indeed they are the principal drainage ways for excessive rainfall. The northward way also eventually bends westward to reach the high road, so that the town is in connection with that important thoroughfare both at its northern and southern extremities, but neither of these ways of entrance is raised or made.

311. In all the town there are but three fine double-storied houses, one of which, however, is a fine stone-built mansion, the former home of Manik Chund, a rich merchant and zemindar, who was for many years the principal person in Phoolpore, and much interested about its improvement and the welfare of its people. Unfortunately he died three years ago, and his death is lamented now in the town as a common misfortune, for he was energetic and very charitable.

The remaining houses are of one story, mostly mud-built, with tiled roofs; generally they are kept in fair repair, though ruinous houses may be found, and in many parts vacant house sites, appearing as heaps of earth, may be seen. Phoolpore was once a famous place for weavers and cloth printers, the majority of whom have gone to Bombay, and these heaps are in greatest measure the remains of their former houses. But some of these people remain, and cloth is still made and printed there.

The houses are gathered principally along the course of the four ways, so that the ground-plan of the inhabited site is star-shaped, cultivated land intervening between the radii. For this reason the general appearance of Phoolpore is that of a collection of mohullahs divided by khets.

312. The site being low, of course much earth has had to be dug to raise the house sites and build the houses, and consequently many excavations have been formed about and in the town site. These excavations are principally in the western, northern, and eastern outskirts, but the one most worthy of notice is in the Colonelgunge mohullah near the centre of the town.

313. A Tuhseeldar resides at Phoolpore, and the 34th Section of the Police Act has been extended to it. The limits of the inhabited site have been permanently marked by stone pillars set round it at distances varying from 100 to 300 yards from the nearest houses.

314. A house-tax, realizing Rs. 1,750 a year, is collected, but most of the people are very poor, many much poorer than when Manik Chund lived, and the tax is to be reduced to Rs. 1,500. From this fund eight public sweepers are paid, and their labours are well controlled, the town being found remarkably clean throughout. The removal of sweepings is much helped by the use of a well-made, deep hand-cart drawn by the sweepers, and certainly the matter of conservancy receives much attention at Phoolpore, with a very favourable result in appearance now, as contrasted with its condition five years ago. Something of considerable improvement has been effected with regard to the excavations in the western outskirt too. Now, for some time past, all digging there has been forbidden. Two shallow, but extensive, excavations have been brought under cultivation in good part, and consequently their surface is rising. A third, deeper, has been recovered to purity, its edges planted with a mehndee hedge. The thoroughfares of the town generally are kept in good repair, though unmade.

315. The public retiring places have been established at greater distance than formerly from the abadee, and are mostly now in cultivated land, and in all much good work of improvement has been effected. The most necessary sanitary requirement is a better drainage of the centre of the town site in the neighbourhood of the Chowraha. All this part drains to the excavation amidst the houses in Colonelgunge, and when it overflows the water runs into the low main thoroughfares leading southwards and eastwards, to reach excavations in the outskirts there, which in their turn drain to the Saoondwa Tal, a large jheel about 1½ mile east of the town.

316. Colonelgunge gurha (excavation) is a longish but narrow water-hole of bad aspect, for which as yet nothing has been done. Indeed the best thing about it, a flourishing Babool tree, had been cut down by the owner on the morning of my inspection. It might be readily fashioned into a decent reservoir, the outflow of which should be carried beneath the public thoroughfare, not on to it as now, and so directly to the eastern outskirt by the straightest course available.

If that could be effected and the excavation fenced round and brought under management, its bed would silt up in a few years and a very great improvement result. Helped by something reasonable of earth-work, and the margins planted with trees, I believe a market space might be provided near to the bazaar which would be acceptable to the country people who come to the town on market days.

Indeed, the numerous earth-heaps of vacated house sites present a favourable opportunity for work of this kind at Phoolpore. They are frequented as urinal places, and their levelling, if effected with judgment, might produce a double benefit.

Certainly the principal public ways in at least three directions would be much improved by being raised, so that they would drain at the sides, for, as their roughened surface at places showed, they are almost impassable in the rains. I think it not unlikely that the natural drainage channel to the Saoondwa Jheel requires atten-

tion, as the townspeople complained of the stagnation of water in and about the town in times of heavy rain.

317. The school-house at Phoolpore is a good, durable structure, standing in an enclosed court-yard. Its floor is well raised, and it was seen to be carefully kept in all respects.

318. The police office is a house rented for Rs. 3 a month, and a very good house for the money, but perhaps not well suited for its present purpose. It has no lock-up. A new police office is to be built. The mortuary records were found in good order.

319. The water in the town wells stands at 27 feet from the surface, and is considered very good by the inhabitants. The wells are numerous, and generally in good repair. The surface about the important well in the centre of the Chowraha requires to be raised and drained.

320. There is a dispensary at Phoolpore. It is situated in the midst of the town, near to the Chowraha, and consists of rooms about a small raised court-yard. It was noticed to be in good order.

CHAPTER V.

SANITARY IMPROVEMENTS DURING THE PAST YEAR.

321. During the past year, a continuous attention has been given to the business of mortuary registration, the correctness of which is of the very greatest importance to the cause of sanitary improvement. For until it can be indisputably shown that the death-rate is in excess of the natural expectation, the necessity of improvement loses its most forcible argument with those who have the power to originate and foster it. During the two last years our registration has resulted in a record of life-value in this country almost exactly equal to that of England. That this cannot be near to the truth must be apparent to any one who has walked much in Indian and in English towns and cities, and has been able to note the sparsity of old men in the former, by comparison with the profusion of mature grey heads and wise old faces of the latter.

322. I think nothing can be more certain than that the average of life in these provinces is several years less than in England, and that our mortuary returns do not yet show this, must, I think, be due to the fact that many deaths are still unregistered. I could adduce proofs of this, but it is unnecessary, for so long as the record of a death at the police office depends upon the memory of the chowkeedar, of course deaths not known to that individual will not be registered. How, for example, can the deaths amongst the numerous class of servants in our great stations be recorded?

323. I think the great advantage of our present system of registration is, that it is gradually habituating the people to this form of enquiry; gradually, by its harmless results, proving to them that nothing to their detriment is likely to come out of it. But it is very necessary that I should guard against the supposition that a near approach to correctness has been achieved. So much of victory in this matter remains for a future time when registration has become compulsory. Then, of a surety, the death-rate, having the power of truth, will gather an attention never accorded to it yet. The well ascertained ratio of at least 40 per 1,000 in the average of prisoners, with scarcely a child amongst them, shadows something of the truth. And the registration in the town circles, 32·07 per 1,000 during the past year, showing an average of 31 years life in them, points in the same direction.

324. In the meanwhile I think it right to work on, to the best of my ability, for the improvement of the record as now compiled; hoping always that the truth will eventually come to light, but never, as my reports will show, dwelling at any length upon, or assuming anything of importance for, the mortuary statements with their fair show in the Appendix.

325. In my last year's report I ventured to touch upon the subject of birth registration which had been commenced in 1872 in the 78 municipal towns. During the past year the endeavour has been continued. The results will be found in Statement No. X. of the Appendix, and it will be seen that the ratio of births to population, omitting Mussoorie, which is inhabited principally by temporary male residents, varies between 15·80 per 1,000 in Allahabad and 80·71 in Tilhur. As a rule, indeed, the birth registration of the large cities, as Allahabad, Cawnpore, Benares, Furruckabad, and Meerut, gives results which are absurd, and which show that the registration was probably effected only in certain portions of the municipal area.

326. As in death registration, so in birth registration, if the returns contain anything of error at all, or anything which does not state the whole and exact truth, their value is almost nothing. And the ratios of column 7 of the statement will be seen to vary so greatly throughout the series, as to throw discredit upon the undertaking so far as it has yet proceeded.

Indeed as the deaths registered in towns show a ratio of 32·07 per 1,000 living, while the births registered are only 30·34, it is probable that some very grave error still characterizes the birth registration, for it is certain that the births are more numerous than the deaths in any given flourishing population.

In 1872 the ratio of births registered was only 22 60 per 1,000 living, so it is possible to say that during the past year more attention has been given to this matter in the municipalities generally, although as yet the result is not satisfactory.

327. During the past year I was directed by order of Government, dated the 11th of February, 1873, to receive the monthly statements of deaths, births, and marriages registered in the cantonments of the province, and to show the populations of the cantonments and the events registered separately in my annual reports.

328. I did therefore place myself in communication with the cantonment committees, and have received the monthly statements in the prescribed form from April to December. And the separate statement required will be found in the Appendix No. XI.

329. By reference to it, it may be noticed that the registration of births and marriages, which was to be effected only where the cantonment authorities were interested in such matters, has been accomplished only in any serious degree at Meerut, Benares, and Agra; and as I do not know what might be the expectation in a given population in regard to these matters, I cannot say whether the registration has been well effected or not. But I think not in regard to births, because in all cases more deaths have been registered than births.

330. In regard to deaths, I think the ratio of nine months' record—18·56 per 1,000 living—is likely to be near the truth. The equivalent annual average would be 22·80. The average of the province for the past year was 22·91, showing a rather remarkable agreement in results arrived at by two quite separate endeavours. But, as I have already pointed out, this ratio, showing an average life-value of 44 years, cannot be a correct statement of the true death ratio in any large number of persons in this province, and the record shows that mortuary registration must have been neglected in several of the cantonments, but notably in Moradabad and Jhansie.

331. During the year under consideration the work of sanitary improvement has made good progress in most of the towns and cities. An idea of the reality and importance of the work going on in this direction may be gathered from the following statement. In eighty-one towns and cities the total municipal income is about £204,683. Of this sum £114,656 will be expended for the realization of measures directly concerned with the work of improvement, namely:—

	£
For Original Works, ...	43,363
„ Conservancy, ...	31,183
„ Repairs, ...	24,879
„ Education, ...	6,006
„ Dispensaries, ...	3,564
„ Lighting, ...	3,095
„ Charities, ...	1,437
„ Vaccination, ...	1,129
Total, ...	114,656

332. The balance of income is expended for police, collection, and head offices, and it appears that rather more than half the total income is expended for the purposes specified.

333. I am not able to say that all the original works contemplated or commenced in the municipalities are of a nature likely to improve their sanitary condition; but the majority, I think, are of that nature, and a very great amount of general improvement in these important centres of population is resulting. The towns, which, prior to this modern effort at improvement, were quite unfit for close inspection anywhere off the main roadway, so that to walk in them was a very unpleasant duty, have had that reproach taken away in very great measure indeed. The public thoroughfares have been consolidated or otherwise improved, surface drainage has, in many places, been fairly well effected, ruined houses have been removed. The levelling and planting of surfaces, formerly quite neglected, has been a favourite form of improvement which cannot be too much encouraged. And in all, the results of a well directed expenditure, which has extended now over some years, has brought about a very great change,—a change which I am able to judge of well, for the towns and cities—their peoples, condition, and management—are best known to me of any parts of the province. I know this now well-rooted effort will grow as the years pass, and have little doubt that this improvement of all public ways and places will eventually influence the minds of the people, until habits of respect for the inhabited site will have become as settled a custom as formerly it was neglected, the site defiled.

334. In some parts of the Province I have noticed during the past year a decided improvement in regard to the cleanliness of the smaller towns and even the villages. This appeared to have resulted from a permanent marking out of the inhabited site, and requesting from the inhabitants something of consideration for the site so defined. I thought the people seemed to acquiesce willingly in this arrangement, and deposited impurities outside the stones *(putthur se bahar)*, as they expressed it, as a settled custom. The result was most satisfactory as regards the condition of the inhabited site, and I think this plan of permanent marking, if generally established, might be the first step towards the improvement of village sites which unquestionably do much require consideration.

335. The more perfect drainage of the canal-irrigated land of the Doab has been prosecuted with some energy during the past year, and a very considerable sum of money has been expended for the improvement of the natural drainage ways there, and the formation of cuttings to them from land which had become in some measure waterlogged.

The most important schemes in progress to this end are the improvement of the drainage of the country about Begumabad in the Meerut District, for which a sum of Rs. 45,846 has been set aside for expenditure in the current year.

The rural scheme in Boolundshuhur, with an allotment of Rs. 29,343.

The deepening of the Kutha Nuddee, with an allotment of Rs. 55,567.

The improvement of the Kursunnee Nuddee throughout, with an allotment of Rs. 1,40,000.

The better drainage of the Ganges khadir of Moozuffernuggur, with an allotment of Rs. 42,562.

The drainage of the inhabited site and surrounding country of Sirdhanna, with an allotment of Rs. 72,000.

The improvement of the drainage channels which feed the Aboo Nullah, with an allotment of Rs. 47,000.

The drainage of the Bhynsie swamp, with an allotment of Rs. 20,000.

336. I mention these facts and figures to show that this important work is being vigorously pursued. And, as the Engineers who direct the work, control its method and cost, abound in knowledge and experience most necessary for its success, I think it reasonable to hope that the results will in some measure at least remedy the existing excessive moisture in the country indicated.

337. Since the year 1870, a sum in all of Rs. 5,20,000 has been allotted for works of drainage in connection with canals, and a recent Resolution of Government to the following effect makes it hopeful that the means will not fail to carry out this great undertaking to a satisfactory conclusion :—

"His Honor desires to place on record his strong conviction of the necessity for steadily developing these drainage works. A regular allowance of a lakh of rupees per annum in the ordinary budget, for the next ten years, would produce excellent results, increasing the health and prosperity of the country, adding to the productiveness of the soil, and reducing to a minimum the over-saturation arising from canal irrigation, an evil which, it appears to Sir William Muir, the Government is bound to do all in its power to obviate."

C. PLANCK,
Sanitary Commissioner, N.-W. Provinces.

ALLAHABAD :
Dated the 8th May, 1874.

APPENDICES.

APPEN

ANNUAL

Deaths registered in the different Districts of the

1.	2.	3.	4.			5.	
Number.	Division.	District.	*Population according to Census of* 1872.			Area in Square Miles.	
			Male.	Female.	Total.	Miles.	Acres.
1	Kumaon.	Kumaon, ...	231,146	201,742	432,888	6,000	...
2		Gurhwal, ...	155,745	154,537	310,282	5,500	...
3		Terai, ...	102,573	83,074	185,647	919	633
4	Rohilkund.	Bijnour, ...	395,395	341,757	737,152	1,902	603
5		Moradabad, ...	596,776	525,355	1,122,131	2,271	582
6		Bareilly, ...	806,913	699,888	1,506,801	2,982	110
7		Shahjehanpore, ...	511,136	438,335	949,471	1,723	320
8		Budaon, ...	503,619	430,729	934,348	2,004	536
9	Meerut.	Dehra Doon, ...	68,044	47,667	115,711	1,020	471
10		Seharunpore, ...	484,508	399,274	883,782	2,217	...
11		Moozuffernuggur, ...	375,608	314,474	690,082	1,659	229
12		Meerut, ...	685,404	588,510	1,273,914	2,360	264
13		Boolundshuhur, ...	493,682	442,911	936,593	1,910	...
14		Allygurh, ...	577,263	495,845	1,073,108	1,963	455
15	Agra.	Etah, ...	382,746	320,739	703,485	1,512	...
16		Muttra, ...	480,615	406,740	887,355	1,611	498
17		Furruckabad, ...	499,722	419,026	918,748	1,744	473
18		Mynpoory, ...	426,955	338,828	765,783	1,696	186
19		Agra, ...	589,562	504,622	1,094,184	1,907	339
20		Etawah, ...	369,928	298,653	668,581	1,691	...
21	Allahabad.	Cawnpore, ...	619,118	536,321	1,155,439	2,336	536
22		Futtehpore, ...	345,533	318,282	663,815	1,585	435
23		Jounpore, ...	545,700	480,169	1,025,869	1,556	...
24		Humeerpore, ...	276,196	252,941	529,137	2,286	384
25		Banda, ...	359,765	337,846	697,611	2,908	439
26		Allahabad, ...	715,110	679,135	1,394,245	2,747	190
27	Benares.	Goruckpore, ...	1,078,072	941,278	2,019,350	4,578	508
28		Bustee, ...	784,691	688,303	1,472,994	2,789	...
29		Azimgurh, ...	826,145	705,265	1,531,410	2,565	...
30		Ghazeepore, ...	696,572	648,829	1,345,401	2,167	600
31		Benares, ...	406,344	387,355	793,699	996	121
32		Mirzapore, ...	520,496	494,797	1,015,293	5,217	313
33	Jhansie.	Jaloun, ...	216,607	187,777	404,384	1,553	...
34		Jhansie, ...	167,519	150,216	317,735	1,567	...
35		Lullutpore, ...	111,625	101,003	212,628	1,947	264
		Total for the Province, ...	16,406,833	14,362,223	30,769,056	81,402	529

DIX A.

FORM No. I.

North-Western Provinces during the year 1873.

6.	7.			8.			9.	10.
Average population per square mile.	*Number of Deaths registered.*			*Ratio of Deaths per* 1,000 *of the Population.*			Mean ratio of Deaths per 1,000 during previous four years.	Number.
	Male.	Female.	Total.	Male.	Female.	Total.		
72	6,159	4,985	11,144	26·65	24·69	25·74	17·19	1
56	3,494	2,707	6,201	22·43	17·51	19·98	19·53	2
202	3,166	2,481	5,647	30·86	29·86	30·41	38·95	3
388	8,489	6,785	15,274	21·46	19·85	20·72	25·02	4
494	13,712	11,337	25,049	22·97	21·57	22·32	20·63	5
505	18,439	14,902	33,341	22·85	21·29	22·12	21·44	6
551	16,814	13,316	29,130	30·93	30·37	30·68	27·49	7
466	11,049	9,140	20,189	21·94	21·21	21·60	14·73	8
114	1,214	697	1,911	17·84	14·62	16·51	12·76	9
399	11,806	9,252	21,058	24·36	23·17	23·82	29·71	10
416	9,514	7,636	17,150	25·30	24·28	24·85	29·55	11
541	17,991	14,918	32,909	26·25	25·34	25·83	25·76	12
490	15,705	14,578	30,283	31·81	32·91	32·34	24·83	13
547	13,523	11,325	24,848	27·42	22·83	23·15	17·63	14
465	9,156	7,895	17,051	23·92	24·61	24·23	19·55	15
551	9,642	7,547	17,189	20·06	18·05	19·37	17·22	16
527	7,230	5,351	12,581	14·46	12·77	13·69	15·86	17
452	8,125	6,109	14,234	19·03	18·02	18·58	20·32	18
575	12,501	9,901	22,402	21·20	19·62	20·47	19·97	19
395	7,042	5,210	12,252	19·03	17·44	18·32	19·71	20
495	16,673	13,765	30,438	26·93	25·66	26·34	24·79	21
419	7,759	6,250	14,009	22·45	19·63	21·10	20·50	22
659	13,080	9,344	22,424	23·98	19·45	21·86	15·36	23
232	7,357	5,244	12,601	26·63	20·73	23·81	26·85	24
240	9,510	6,895	16,405	26·43	20·40	23·51	21·73	25
508	14,756	11,608	26,364	20·63	17·09	18·89	14·51	26
441	35,173	24,794	59,967	32·62	26·34	29·69	12·55	27
528	15,879	11,778	27,657	20·23	17·11	18·77	12·27	28
597	15,315	11,807	27,122	18·57	16·74	17·71	11·99	29
621	17,687	13,785	31,472	25·39	21·24	23·39	13·68	30
797	11,833	9,305	21,138	29·12	24·02	26·63	15·85	31
195	14,691	11,662	26,353	28·22	23·56	25·95	15·16	32
260	4,730	3,388	8,118	21·83	18·04	20·07	20·78	33
203	3,748	2,857	6,605	22·37	19·01	20·78	29·17	34
109	2,414	1,994	4,408	21·62	19·74	20·73	22·94	35
378	394,376	310,548	704,924	24·03	21·62	22·91	19·11	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of 1872.*		
			Male.	Female.	Total.
1	KUMAON.	Total of District containing 8 Circles, ...	231,146	201,742	432,888
2	GURHWAL.	Total of District containing 12 Circles, ...	155,745	154,537	310,282
3	TERAI.	Kasheepore T., ...	6,783	6,438	13,221
4		In the 9 Rural Circles, ...	95,790	76,636	172,426
		Total of District, ...	102,573	83,074	185,647
5	BIJNOUR.	Nugeena T., ...	9,981	9,715	19,696
6		Nujeebabad T., ...	8,964	8,454	17,418
7		Bijnour T., ...	7,025	5,840	12,865
8		Sherkote T., ...	6,353	6,233	12,586
9		Chandpore T., ...	6,170	5,863	12,033
10		In the 27 Rural Circles, ...	356,902	305,652	662,554
		Total of District, ...	395,395	341,757	737,152
11	MORADABAD.	Moradabad T., ...	32,804	29,613	62,417
12		Sumbhul T., ...	23,391	23,583	46,974
13		Amroha T., ...	16,910	17,994	34,904
14		Chundowsee T., ...	12,706	10,980	23,686
15		In the 22 Rural Circles, ...	510,965	443,185	954,150
		Total of District, ...	596,776	525,355	1,122,131
16	BAREILLY.	Bareilly T., ...	55,148	47,834	102,982
17		Phillibheet T., ...	15,138	14,702	29,840
18		Aonla T., ...	5,840	5,313	11,153
19		In the 27 Rural Circles, ...	730,787	632,039	1,362,826
		Total of District, ...	806,913	699,888	1,506,801
20	SHAHJEHANPORE.	Shahjehanpore T., ...	36,215	35,921	72,136
21		In the 23 Rural Circles, ...	474,921	402,414	877,335
		Total of District, ...	511,136	438,335	949,471
22	BUDAON.	Budaon T., ...	16,848	16,474	33,322
23		Suheswan T., ...	8,618	8,445	17,063
24		In the 18 Rural Circles, ...	478,153	405,810	883,963
		Total of District, ...	503,619	430,729	934,348
25	DEHRA DOON.	Total of District containing 6 Circles, ...	68,044	47,667	115,711

DIX B.

FORM No. II.

North-Western Provinces during each month of the year 1873.

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year. Male.	Female.	Total.	Number.
767	803	766	1,309	1,761	1,563	1,047	796	710	627	475	520	6,159	4,985	11,144	1
311	364	383	436	574	654	730	725	737	516	415	356	3,494	2,707	6,201	2
42	23	25	27	42	78	38	68	113	47	47	31	338	243	581	3
546	422	437	604	466	264	181	241	357	508	574	466	2,828	2,238	5,066	4
588	445	462	631	508	342	219	309	470	555	621	497	3,166	2,481	5,647	
15	17	23	14	32	19	22	44	41	24	27	31	160	149	309	5
46	30	27	27	49	36	31	33	32	68	45	36	280	181	461	6
11	14	16	12	20	17	22	18	39	16	24	36	134	111	245	7
20	11	16	19	33	15	30	17	13	20	23	12	144	85	229	8
22	37	17	25	22	37	24	38	53	41	43	33	215	177	392	9
1,095	763	751	976	1,429	1,274	943	1,005	1,339	1,564	1,306	1,193	7,556	6,082	13,638	10
1,209	872	850	1,073	1,585	1,398	1,072	1,155	1,517	1,733	1,469	1,341	8,489	6,785	15,274	
165	85	137	144	152	183	133	150	144	189	143	111	934	802	1,736	11
26	20	29	66	134	165	110	134	179	138	149	134	666	618	1,284	12
63	56	52	69	87	89	97	113	148	127	107	85	573	520	1,093	13
47	29	35	46	46	40	48	211	167	84	66	44	466	397	863	14
1,407	911	863	1,159	1,706	1,925	1,252	1,603	3,039	2,604	1,805	1,799	11,073	9,000	20,073	15
1,708	1,101	1,116	1,484	2,125	2,402	1,640	2,211	3,677	3,142	2,270	2,173	13,712	11,337	25,049	
237	142	177	219	310	266	260	415	391	301	350	246	1,642	1,672	3,314	16
33	18	27	39	38	60	47	65	72	117	221	126	488	379	867	17
85	38	50	123	93	125	61	44	54	142	65	65	520	425	945	18
2,477	1,790	1,623	2,685	3,719	2,642	1,909	1,840	2,088	2,840	2,746	1,856	15,789	12,426	28,215	19
2,836	1,988	1,877	3,066	4,160	3,093	2,277	2,364	2,605	3,400	3,382	2,293	18,439	14,902	33,341	
59	50	62	62	352	189	143	189	308	240	171	132	1,015	942	1,957	20
1,960	1,388	1,751	2,453	3,139	2,160	1,841	1,948	2,626	3,340	2,519	2,048	14,799	12,374	27,173	21
2,019	1,438	1,813	2,515	3,491	2,349	1,984	2,137	2,934	3,580	2,690	2,180	15,814	13,316	29,130	
38	23	24	31	44	21	28	36	84	48	29	36	207	235	442	22
32	32	45	67	113	67	39	46	76	90	55	47	382	327	709	23
1,111	855	988	1,434	2,766	1,865	1,403	1,403	2,369	2,010	1,500	1,334	10,460	8,578	19,038	24
1,181	910	1,057	1,532	2,923	1,953	1,470	1,485	2,529	2,148	1,584	1,417	11,049	9,140	20,189	
136	82	128	172	211	168	121	167	176	202	148	200	1,214	697	1,911	25

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the North-

1.	2.	3.	4.		
Number	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
26	Seharunpore.	Seharunpore T., ...	23,272	20,572	43,844
27		Deobun T., ...	10,083	9,085	19,168
28		Gungoh T., ...	5,728	5,254	10,982
29		Roorkee T., ...	6,550	4,228	10,778
30		In the 12 Rural Circles, ...	438,875	360,135	799,010
		Total of District, ...	484,508	399,274	883,782
31	Moozufferenuggus.	Kyrannah T.,...	9,117	8,625	17,742
32		Kandlah T., ...	5,799	5,227	11,026
33		Moozuffernuggur, T., ...	6,105	4,688	10,793
34		In the 25 Rural Circles, ...	354,587	296,934	650,521
		Total of District, ...	375,608	314,474	690,082
35	Meerut.	Meerut T.,...	44,035	37,351	81,386
36		Haupper T., ...	7,601	6,943	14,544
37		Sirdhanna, T., ...	6,508	5,961	12,469
38		In the 40 Rural Circles, ...	627,260	538,255	1,165,515
		Total of District, ...	685,404	588,510	1,273,914
39	Boolundshuhur.	Khoorjah T., ...	13,770	13,088	26,858
40		Secundrabad T., ...	9,514	8,835	18,349
41		Boolundshuhur T., ...	7,730	7,074	14,804
42		Shikarpore T., ...	5,798	5,540	11,338
43		In the 29 Rural Circles, ...	456,870	408,374	865,244
		Total of District, ...	493,682	442,911	936,593
44	Allygurh.	Allygurh or Coel T., ...	31,762	26,777	58,539
45		Hatrass T., ...	12,718	10,871	23,589
46		Atrowlee T., ...	8,239	7,702	15,941
47		Secundra Rao T, ...	6,668	5,974	12,642
48		In the 28 Rural Circles, ...	517,876	444,521	962,397
		Total of District, ...	577,263	495,845	1,073,108
49	Etah.	Kassgunge T., ...	8,393	7,371	15,764
50		Soron T., ...	5,881	5,301	11,182
51		In the 18 Rural Circles, ...	368,472	308,067	676,539
		Total of District, ...	382,746	320,739	703,485

DIX B.
FORM No. II.
Western Provinces during each month of the year 1873.—(Continued.)

5.											6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year.*			Number.
												Male.	Female.	Total.	
108	85	97	139	127	138	131	236	262	227	151	117	959	859	1,818	26
35	21	22	31	48	41	34	49	96	71	51	43	292	250	542	27
27	22	31	18	42	40	30	37	44	39	34	22	183	203	386	28
10	7	8	15	19	16	15	14	13	24	14	16	98	73	171	29
1,193	1,069	1,330	1,583	2,108	2,121	1,135	1,281	1,701	1,777	1,539	1,304	10,274	7,867	18,141	30
1,373	1,204	1,488	1,786	2,344	2,356	1,345	1,617	2,116	2,138	1,789	1,502	11,806	9,252	21,058	
16	16	14	14	40	35	15	17	38	38	41	33	191	126	317	31
10	6	11	21	29	33	14	10	15	31	32	28	135	105	240	32
7	3	10	17	37	32	20	22	35	30	22	13	130	118	248	33
1,104	856	1,036	1,396	2,047	1,781	1,070	1,187	1,666	1,668	1,225	1,309	9,058	7,287	16,345	34
1,137	881	1,071	1,448	2,153	1,881	1,119	1,236	1,754	1,767	1,320	1,383	9,514	7,636	17,150	
84	41	81	68	110	166	107	181	306	364	231	205	1,004	940	1,944	35
25	20	38	36	60	58	40	76	138	156	92	56	408	387	795	36
29	19	17	10	24	27	10	16	21	23	9	16	151	70	221	37
1,601	1,356	1,531	1,766	2,535	2,479	1,506	2,077	4,671	4,891	3,255	2,290	16,428	13,521	29,949	38
1,739	1,436	1,667	1,880	2,729	2,721	1,663	2,350	5,136	5,434	3,587	2,567	17,991	1,4918	32,909	
58	82	142	173	122	101	75	146	228	230	159	91	800	807	1,607	39
35	27	33	41	14	69	62	82	104	108	50	57	366	314	682	40
45	33	34	38	25	33	26	56	118	123	98	69	365	333	698	41
41	38	31	6	53	21	12	19	17	15	76	8	172	165	337	42
1,492	1,201	1,550	2,025	2,809	2,483	1,631	1,642	3,818	3,892	2,673	1,743	14,000	12,959	26,959	43
1,671	1,381	1,790	2,283	3,023	2,707	1,806	1,945	4,285	4,368	3,056	1,968	15,705	14,578	30,283	
134	71	72	113	178	180	145	229	274	299	204	136	1,027	1,008	2,035	44
50	...	52	47	78	118	77	115	202	188	138	97	600	562	1,162	45
9	47	86	15	78	103	66	66	75	87	51	41	376	348	724	46
11	...	12	18	36	51	45	32	41	28	31	16	159	162	321	47
976	762	829	991	1,846	2,349	1,777	1,676	2,960	2,879	2,195	1,366	11,361	9,245	20,606	48
1,186	880	1,051	1,184	2,216	2,801	2,110	2,118	3,552	3,481	2,619	1,656	13,528	11,325	24,848	
45	39	80	132	94	43	37	51	76	47	41	36	371	350	721	49
63	48	40	39	39	45	50	65	84	65	34	36	315	293	608	50
850	719	1,093	1,426	1,824	1,470	1,268	1,346	1,547	1,536	1,506	1,137	8,470	7,252	15,722	51
958	806	1,213	1,597	1,957	1,558	1,355	1,462	1,707	1,648	1,581	1,209	9,156	7,895	17,051	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the North-

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
52	Muttra.	Muttra T., ...	30,786	28,495	59,281
53		Bindrabun T., ...	10,602	9,748	20,350
54		Juleysur T., ...	8,110	7,584	15,694
55		Kosee T., ...	6,568	6,202	12,770
56		In the 28 Rural Circles, ...	424,549	354,711	779,260
		Total of District, ...	480,615	406,740	887,355
57	Furruckabad.	Furruckabad T., ...	40,156	39,048	79,204
58		Kunouj T., ...	8,772	8,321	17,093
59		Kaimgunge T., ...	5,287	5,036	10,323
60		In the 17 Rural Circles, ...	445,507	366,621	812,128
		Total of District, ...	499,722	419,026	918,748
61	Mynpoory.	Mynpoory T., ...	11,326	9,851	21,177
62		Shekoabad T., ...	5,367	4,702	10,069
63		In the 17 Rural Circles, ...	410,262	324,275	734,537
		Total of District, ...	426,955	338,828	765,783
64	Agra.	Agra T., ...	79,344	69,664	149,008
65		Ferozabad T., ...	7,395	6,860	14,255
66		In the 34 Rural Circles, ...	502,823	428,098	930,921
		Total of District, ...	589,562	504,622	1,094,184
67	Etawah.	Etawah T., ...	16,344	14,205	30,549
68		In the 20 Rural Circles, ...	353,584	284,448	638,032
		Total of District, ...	369,928	298,653	668,581
69	Cawnpore.	Cawnpore T., ...	67,663	55,107	122,770
70		In the 26 Rural Circles, ...	551,455	481,214	1,032,669
		Total of District, ...	619,118	536,321	1,155,439
71	Futtehpore.	Futtehpore T., ...	10,297	9,582	19,879
72		In the 22 Rural Circles, ...	335,236	308,700	643,936
		Total of District, ...	345,533	318,282	663,815
73	Jounpore.	Jounpore T., ...	11,404	11,923	23,327
74		In the 18 Rural Circles, ...	534,296	468,246	1,002,542
		Total of District, ...	545,700	480,169	1,025,869

DIX B.
FORM No. II.
Western Provinces during each month of the year 1873.—(Continued.)

5.											6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	*Total deaths registered during the year.* Male.	Female.	Total.	Number.
120	81	119	110	183	211	153	235	321	279	247	159	1,170	1,048	2,218	52
29	32	38	43	46	71	66	120	157	145	123	52	493	427	920	53
45	27	35	45	57	45	71	53	70	71	49	42	320	290	610	54
14	15	9	21	36	49	35	60	106	58	38	30	256	215	471	55
508	425	511	672	1,297	1,168	1,135	1,170	1,881	1,797	1,294	1,112	7,403	5,567	12,970	56
716	580	710	891	1,619	1,544	1,460	1,638	2,535	2,350	1,751	1,395	9,642	7,547	17,189	
97	69	73	125	222	195	204	226	274	254	201	172	1,199	913	2,112	57
19	24	23	15	29	20	28	36	38	32	35	32	178	144	322	58
82	58	101	151	191	192	106	102	147	142	109	110	810	681	1,491	59
615	524	552	674	877	670	679	540	804	933	776	1,012	5,043	3,613	8,656	60
804	675	749	965	1,319	1,077	1,017	904	1,263	1,361	1,121	1,326	7,230	5,351	12,581	
51	24	44	52	48	43	52	69	111	88	55	45	373	309	682	61
16	19	10	22	48	40	29	143	107	31	27	31	265	258	523	62
820	727	824	765	1,113	1,069	1,073	1,145	1,529	1,306	1,353	1,305	7,487	5,542	13,029	63
887	770	878	839	1,209	1,152	1,154	1,357	1,747	1,425	1,435	1,381	8,125	6,109	14,234	
244	216	339	461	563	498	357	547	792	657	400	405	2,868	2,611	5,479	64
19	15	22	50	47	34	37	72	58	53	25	26	246	212	458	65
985	675	1,029	1,216	1,585	1,570	1,236	1,423	2,223	2,009	1,273	1,241	9,387	7,078	16,465	66
1,248	906	1,390	1,727	2,195	2,102	1,630	2,042	3,073	2,719	1,698	1,672	12,501	9,901	22,402	
57	43	45	49	76	83	77	147	152	123	94	88	519	515	1,034	67
811	613	814	724	1,067	641	540	770	1,444	1,394	1,198	1,202	6,523	4,695	11,218	68
868	656	859	773	1,143	724	617	917	1,596	1,517	1,292	1,290	7,042	5,210	12,252	
392	407	435	395	353	188	156	250	363	320	273	269	2,093	1,708	3,801	69
1,879	1,466	1,766	1,936	2,816	2,087	1,944	2,147	2,972	2,467	2,610	2,547	14,580	12,057	26,637	70
2,271	1,873	2,201	2,331	3,169	2,275	2,100	2,397	3,335	2,787	2,883	2,816	16,673	13,765	30,438	
30	21	33	33	45	48	79	230	82	58	61	40	429	331	760	71
975	854	837	812	1,265	1,223	864	984	1,425	1,313	1,371	1,326	7,330	5,919	13,249	72
1,005	875	870	845	1,310	1,271	943	1,214	1,507	1,371	1,432	1,366	7,759	6,250	14,009	
59	99	250	46	96	86	100	221	216	193	120	76	850	712	1,562	73
1,242	1,439	1,452	1,761	2,030	1,774	1,425	1,950	2,059	2,022	1,853	1,865	12,230	8,632	20,862	74
1,301	1,538	1,702	1,797	2,126	1,860	1,525	2,171	2,275	2,215	1,973	1,941	13,080	9,344	22,424	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the North-

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
75	Hurreer-pore.	Raath T., ...	7,094	7,421	14,515
76		In the 29 Rural Circles, ...	269,102	245,520	514,622
		Total of District, ...	276,196	252,941	529,137
77	Banda.	Banda T., ...	14,225	13,521	27,746
78		In the 28 Rural Circles, ...	345,540	324,325	669,865
		Total of District, ...	359,765	337,846	697,611
79	Allahabad.	Allahabad T., ...	80,644	63,049	143,693
80		In the 33 Rural Circles, ...	634,466	616,086	1,250,552
		Total of District, ...	715,110	679,135	1,394,245
81	Goruckpore.	Goruckpore T., ...	27,544	23,573	51,117
82		In the 35 Rural Circles, ...	1,050,528	917,705	1,968,233
		Total of District, ...	1,078,072	941,278	2,019,350
83	Bus-tee.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994
84	Azimgurh.	Azimgurh T., ...	8,756	7,014	15,770
85		Mow T., ...	5,794	5,521	11,315
86		In the 27 Rural Circles, ...	811,595	692,730	1,504,325
		Total of District, ...	826,145	705,265	1,531,410
87	Ghazeepore.	Ghazeepore T., ...	19,582	19,271	38,853
88		In the 27 Rural Circles, ...	676,990	629,558	1,306,548
		Total of District, ...	696,572	648,829	1,345,401
89	Benares.	Benares T., ...	89,763	85,425	175,188
90		Ramnuggur T., ...	5,256	5,697	11,953
91		In the 14 Rural Circles, ...	310,325	296,233	606,558
		Total of District, ...	406,344	387,355	793,699
92	Mirzapore.	Mirzapore T., ...	34,820	32,454	67,274
93		Chunar T., ...	4,989	5,165	10,154
94		In the 23 Rural Circles, ...	480,687	457,178	937,865
		Total of District, ...	520,496	494,797	1,015,293
95	Jaloun.	Calpee T., ...	8,021	7,549	15,570
96		Koonch T., ...	7,309	7,139	14,448
97		Jaloun T., ...	5,309	4,888	10,197
98		In the 21 Rural Circles, ...	195,968	168,201	364,169
		Total of District, ...	21,6607	187,777	404,384

DIX B.
FORM No. II.
Western Provinces during each month of the year 1873.—(Continued.)

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year.* Male.	Female.	Total.	Number.
15	17	14	18	22	16	14	39	59	83	53	31	195	186	381	75
837	692	696	515	744	868	536	999	1,757	1,898	1,564	1,114	7,162	5,058	12,220	76
852	709	710	533	766	884	550	1,038	1,816	1,981	1,617	1,145	7,357	5,244	12,601	
56	51	58	58	45	58	41	213	224	125	90	72	598	493	1,091	77
1,011	968	834	665	1,013	1,333	798	1,222	1,941	2,271	1,766	1,492	8,912	6,402	15,314	78
1,067	1,019	892	723	1,058	1,391	839	1,435	2,165	2,396	1,856	1,564	9,510	6,895	16,405	
80	73	98	272	332	139	81	145	132	88	78	56	852	722	1,574	79
1,772	1,431	1,562	1,698	2,144	2,576	1,693	2,050	2,800	2,694	2,294	2,076	13,904	10,886	24,790	80
1,852	1,504	1,660	1,970	2,476	2,715	1,774	2,195	2,932	2,782	2,372	2,132	14,756	11,608	26,364	
174	269	214	209	189	161	151	175	181	150	144	170	1,349	838	2,187	81
3,520	4,038	5,905	6,309	5,909	4,513	4,256	4,445	4,889	4,582	4,856	4,558	33,824	23,956	57,780	82
3,694	4,307	6,119	6,518	6,098	4,674	4,407	4,620	5,070	4,732	5,000	4,728	35,173	24,794	59,967	
2,412	1,905	2,836	3,364	3,660	2,324	1,674	1,756	1,901	1,878	1,997	1,950	15,879	11,778	27,657	83
15	13	24	35	20	101	126	59	63	23	42	48	280	289	569	84
13	3	5	7	24	23	12	52	97	32	30	25	172	151	323	85
1,618	1,128	1,496	2,042	2,297	1,640	1,899	2,921	3,383	2,934	2,841	2,531	14,863	11,367	26,230	86
1,646	1,144	1,525	2,084	2,341	1,764	2,037	3,032	3,543	2,989	2,413	2,604	15,315	11,807	27,122	
36	38	75	133	109	84	84	141	165	132	90	73	620	540	1,160	87
1,388	1,669	1,773	1,887	2,451	2,418	2,708	3,592	3,875	3,163	3,187	2,201	17,067	13,245	30,312	88
1,424	1,707	1,848	2,020	2,560	2,502	2,792	3,733	4,040	3,295	3,277	2,274	17,687	13,785	31,472	
250	230	295	426	469	424	331	593	501	421	348	269	2,610	1,947	4,557	89
20	16	20	22	24	18	20	25	35	17	25	10	154	98	252	90
703	591	945	1,148	1,429	1,521	1,285	1,765	2,543	2,029	1,418	952	9,069	7,260	16,329	91
973	837	1,260	1,596	1,922	1,963	1,636	2,383	3,079	2,467	1,791	1,231	11,833	9,305	21,138	
121	129	145	165	238	266	236	374	386	304	216	169	1,518	1,231	2,749	92
24	29	28	48	42	49	45	91	110	67	55	25	316	297	613	93
1,448	1,256	1,624	1,843	1,888	2,019	1,500	1,995	2,890	2,768	1,995	1,765	12,857	10,134	22,991	94
1,593	1,414	1,797	2,056	2,168	2,334	1,781	2,460	3,386	3,139	2,266	1,959	14,691	11,662	26,353	
35	31	27	31	30	20	19	43	143	95	50	22	321	225	546	95
23	29	23	18	21	19	7	18	17	63	32	9	174	105	279	96
6	9	4	11	25	17	30	28	24	37	19	19	118	111	229	97
447	402	401	320	469	480	437	676	885	1,052	821	674	4,117	2,947	7,064	98
511	471	455	380	545	536	493	765	1,069	1,247	922	724	4,730	3,388	8,118	

APPEN

ANNUAL

Deaths registered in the Rural Circles and Towns of the North-

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
99	JHANSIE.	Mow T., ...	8,205	8,223	16,428
10		In the 24 Rural Circles, ...	159,314	141,993	301,307
		Total of District, ...	167,519	150,216	317,735
101	LULLUTPORE.	Total of the District containing 20 Circles, ...	111,625	101,003	212,628
		GRAND TOTAL FOR THE PROVINCE, ...	16,406,833	14,362,223	30,769,056
			Ratio of deaths per 1,000 in each month, ...		

ABSTRACT

Summary of deaths in the North-

	Total number.	*Total population of*		
		Male.	Female.	Total.
RURAL CIRCLES, ...	804	15,254,936	13,320,116	28,575,052
TOWNS, ...	66	1,151,897	1,042,107	2,194,004
For the Province, ...	870	16,406,833	14,362,223	30,769,056

NOTE.—The Towns containing 10,000 population and

DIX B.

FORM No. II.

Western Provinces during each month of the year 1873.—(Concluded.)

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year.*			Number.
												Male.	Female.	Total.	
32	24	10	13	26	12	23	33	59	85	66	38	248	173	421	99
490	375	364	343	417	551	352	577	663	784	719	549	3,500	2,684	6,184	100
522	399	374	356	443	563	375	610	722	869	785	587	3,748	2,857	6,605	
282	240	295	242	340	355	343	484	494	512	471	350	2,414	1,994	4,408	101
44,741	38,120	45,862	54,406	70,227	61,956	49,105	59,228	81,453	78,771	65,358	55,697	394,376	310,548	704,924	
												Male.	Female.	Total.	
1·45	1·23	1·48	1·76	2·28	2·01	1·59	1·92	2·64	2·56	2·12	3·81	24·03	21·62	22·91	

OF No. II.

Western Provinces during the year 1873.

Total deaths.			Ratio of deaths per 1,000 in the year 1873.			Mean ratio of deaths per 1,000 in previous four years.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
356,514	278,032	634,546	23·37	20·87	22·20	...	...	19·11
37,862	32,516	70,378	32·86	31·20	32·07			
394,376	310,548	704,924	24·03	21·62	22·91	...	...	19·11

upwards have been entered in this and other statements

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of 1872.*			*Cholera.*		
			Male.	Female.	Total.	Male.	Female.	Total.
1	KUMAON.	Total of District containing 8 Circles,	231,146	201,742	432,888	1,154	953	2,107
2	GURHWAL.	Total of District containing 12 Circles,	155,745	154,537	310,282	14	13	27
3	TERAI.	Kasheepore T., ...	6,783	6,438	13,221	63	53	116
4		In the 9 Rural Circles, ...	95,790	76,636	172,426	191	148	339
		Total of District, ...	102,573	83,074	185,647	254	201	455
5	BIJNOUR.	Nugeena T., ...	9,981	9,715	19,696	...	...	...
6		Nujeebabad T., ...	8,964	8,454	17,418	2	...	2
7		Bijnour T., ...	7,025	5,840	12,865	1	1	2
8		Sherkote T., ...	6,353	6,233	12,586	6	...	6
9		Chandpore T., ...	6,170	5,863	12,033	...	...	...
10		In the 27 Rural Circles, ...	356,902	305,652	662,554	34	19	53
		Total of District, ...	395,395	341,757	737,152	43	20	63
11	MORADABAD.	Moradabad T., ...	32,804	29,613	62,417	8	10	18
12		Sumbhul T., ...	23,391	23,583	46,974	6	7	13
13		Amroha T., ...	16,910	17,994	34,904	3	5	8
14		Chundowsee T., ...	12,706	10,980	23,686	31	38	69
15		In the 22 Rural Circles, ...	510,965	443,185	954,150	333	262	595
		Total of District, ...	596,776	525,355	1,122,131	381	322	703
16	BAREILLY.	Bareilly T., ...	55,148	47,834	102,982	8	8	16
17		Phillibheet T., ...	15,138	14,702	29,840	3	3	6
18		Aonla T., ...	5,840	5,313	11,153	1	3	4
19		In the 27 Rural Circles, ...	730,787	632,039	1,362,826	45	52	97
		Total of District, ...	806,913	699,888	1,506,801	57	66	123
20	SHAHJEHANPORE.	Shahjehanpore T., ...	36,215	35,921	72,136	...	...	...
21		In the 23 Rural Circles, ...	474,921	402,414	877,335	32	48	80
		Total of District, ...	511,136	438,335	949,471	32	48	80
22	BUDAON.	Budaon T., ...	16,848	16,474	33,322	...	...	...
23		Suheswan T., ...	8,618	8,445	17,063	16	17	33
24		In the 18 Rural Circles, ...	478,153	405,810	883,963	237	188	425
		Total of District, ...	503,619	430,729	934,348	253	205	458
25	DEHRA DOON.	Total of District containing 6 Circles,	68,044	47,667	115,711	...	...	...

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
33	46	79	2,499	1,993	4,492	1,186	999	2,185	1
10	18	28	1,699	1,166	2,865	1,177	1,030	2,207	2
25	27	52	219	141	360	25	14	39	3
39	46	85	2,430	1,918	4,348	114	82	196	4
64	73	137	2,649	2,059	4,708	139	96	235	
...	...	...	113	107	220	22	16	38	5
10	4	14	150	111	261	56	23	79	6
9	5	14	62	44	106	51	48	99	7
8	6	14	90	51	141	24	14	38	8
2	1	3	104	106	210	24	11	35	9
742	705	1,447	4,998	3,873	8,871	1,006	808	1,814	10
771	721	1,492	5,517	4,292	9,809	1,183	920	2,103	
117	105	222	369	320	689	188	148	336	11
103	112	215	282	262	544	135	109	244	12
33	24	57	174	173	347	215	215	430	13
18	17	35	124	120	244	209	164	373	14
1,600	1,356	2,956	5,798	4,893	10,691	2,258	1,683	3,941	15
1,871	1,614	3,485	6,747	5,768	12,515	3,005	2,319	5,324	
142	171	313	813	877	1,690	465	428	893	16
53	38	91	312	248	560	62	56	118	17
151	144	295	295	232	527	46	24	70	18
3,761	3,212	6,973	10,209	7,989	18,198	956	589	1,545	19
4,107	3,565	7,672	11,629	9,346	20,975	1,529	1,097	2,626	
36	47	83	416	472	888	241	196	437	20
2,573	2,565	5,138	7,695	6,125	13,820	2,293	1,771	4,064	21
2,609	2,612	5,221	8,111	6,597	14,708	2,534	1,967	4,501	
37	44	81	60	88	148	2	...	2	22
85	81	166	153	137	290	37	29	66	23
3,000	2,514	5,514	5,157	4,233	9,390	1,056	806	1,862	24
3,122	2,639	5,761	5,370	4,458	9,828	1,095	835	1,930	
5	5	10	730	447	1,177	319	176	495	25

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
1	Kumaon.	Total of District containing 8 Circles, ...	25	23	48	69	50	119	60	56	116	35	17	52	335
2	Gurhwal.	Total of District containing 12 Circles, ...	19	28	47	37	30	67	101	84	185	27	15	42	341
3	Terai.	Kasheepore T., ...	...	1	1	...	1	1	...	1	1	2	1	3	6
4		In the 9 Rural Circles,...	1	...	1	4	2	6	20	6	26	13	21	34	67
		Total of District, ...	1	1	2	4	3	7	20	7	27	15	22	37	73
5	Bijnour.	Nugeena T., ...	...	...	...	...	...	...	...	1	1	...	...	...	1
6		Nujeebabad T., ...	...	1	1	1	...	1	...	1	1	...	...	...	3
7		Bijnour T., ...	2	...	2	...	...	...	2	5	7	1	1	2	11
8		Sherkote T., ...	...	...	...	...	...	...	3	7	10	...	1	1	11
9		Chandpore T., ...	...	...	...	...	...	...	...	...	...	...	1	1	1
10		In the 27 Rural Circles,	10	12	22	15	3	18	61	55	116	66	102	168	324
		Total of District, ...	12	13	25	16	3	19	66	69	135	67	105	172	351
11	Moradabad.	Moradabad T., ...	10	5	15	8	8	16	17	9	26	9	11	20	77
12		Sumbhul T., ...	...	...	...	1	...	1	8	8	16	2	2	4	21
13		Amroha T., ...	...	...	...	1	...	1	3	1	4	...	2	2	7
14		Chundowsee T., ...	1	1	2	6	3	9	3	...	3	...	1	1	15
15		In the 22 Rural Circles,	9	10	19	23	14	37	78	50	128	80	96	176	360
		Total of District, ...	20	16	36	39	25	64	109	68	177	91	112	203	480
16	Bareilly.	Bareilly T., ...	2	1	3	2	2	4	6	5	11	5	3	8	26
17		Phillibheet T., ...	1	...	1	...	...	...	1	2	3	1	1	2	6
18		Aonla T., ...	...	1	1	1	1	2	10	7	17	6	9	15	35
19		In the 27 Rural Circles,	9	23	32	29	13	42	133	83	216	109	141	250	540
		Total of District, ...	12	25	37	32	16	48	150	97	247	121	154	275	607
20	Shahjehanpore.	Shahjehanpore T.. ...	1	2	3	4	5	9	10	8	18	6	11	17	47
21		In the 23 Rural Circles,	37	101	138	24	9	33	169	122	291	68	114	182	644
		Total of District, ...	38	103	141	28	14	42	179	130	309	74	125	199	691
22	Budaon.	Budaon T.,... ...	...	2	2	...	1	1	2	...	2	2	...	2	7
23		Suheswan T., ...	...	...	...	...	...	...	1	1	2	6	5	11	13
24		In the 18 Rural Circles,	16	36	52	23	14	37	92	86	178	83	129	212	479
		Total of District, ...	16	38	54	23	15	38	95	87	182	91	134	225	499
25	Dehra Doon.	Total of District containing 6 Circles, ...	2	1	3	...	5	5	27	8	35	5	3	8	51

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.								
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
1,098	848	1,946	6,159	4,985	11,144	4·86	·18	10 37	5 04	·77	26·65	24·69	25·74	1
410	323	733	3,494	2,707	6,201	·08	·09	9·23	7·11	1·09	22·43	17·51	19·98	2
4	4	8	338	243	581	8·77	3 93	27·22	2·94	·45	49·83	37·74	43·94	3
16	15	31	2,828	2,238	5,066	1·96	·49	25·21	1·13	·38	29·52	29·20	29·38	4
20	19	39	3,166	2,481	5,647	2·45	·73	25·36	1·26	·39	30·86	29·86	30·41	
25	25	50	160	149	309	...	...	11·17	1·92	·05	16·03	15·33	15·68	5
61	41	102	280	181	461	·11	·80	14·98	4·53	·17	31·23	21·41	26·46	6
6	7	13	134	111	245	·15	1·08	8·23	7·69	·85	19·07	19·00	19·04	7
13	6	19	144	85	229	·47	1·11	11·20	3 01	·87	22·66	13·63	18·19	8
85	58	143	215	177	392	...	·24	17·45	2·90	·08	34·84	30·18	32·57	9
624	505	1,129	7,556	6,0·2	13,638	·08	2·18	13·38	2·76	·48	21·17	19·89	20·58	10
814	642	1,456	8,489	6,785	15,274	·08	2·02	13·30	2 85	·47	21·46	19·85	20·72	
208	186	394	934	802	1,736	·28	3·55	11·03	5·38	1·23	28·47	27·08	27·81	11
129	118	247	666	618	1,284	·27	4·57	11·58	5·19	·44	28·47	26·19	27·33	12
144	100	244	573	520	1,093	·22	1·63	9·94	12·31	·20	33·88	28 89	31·31	13
74	53	127	466	397	863	2 91	1·47	10·30	15·74	·63	36·67	36·15	36·43	14
894	636	1,530	11,073	9,000	20,073	·62	3 09	11·20	4·13	·37	21·67	20·30	21·03	15
1,449	1,093	2,542	13,712	11,337	25,049	·62	3·10	11·15	4·74	·42	22·97	21·57	22·32	
199	177	376	1,642	1,672	3,314	·15	3 03	16·41	3·67	·25	29·77	34·95	32·18	16
55	31	86	488	379	867	·20	3·04	18·76	3·95	·20	32·23	25 77	29·05	17
10	4	14	520	425	945	·35	26 45	47·25	6·27	3·13	89·04	79 99	84·72	18
538	324	862	15,789	12,426	28,215	·07	5·11	13·35	1·13	·39	21·60	19·66	20·70	19
802	536	1,338	18,439	14,902	33,341	·08	5·08	13·92	1·74	·40	22·85	21·29	22·12	
301	201	502	1,015	942	1,957	...	1·15	12·31	6·05	·65	28·02	26·22	27·12	20
1,908	1,519	3,427	14,799	12,374	27 173	·09	5·85	15·75	4·63	·73	31·16	30·74	30·97	21
2,209	1,720	3,929	15,814	13,316	29,130	·08	5 49	15·49	4·74	·72	30·93	30·37	30·68	
104	100	204	207	235	442	...	2·43	4·44	·06	·21	12·28	14·26	13·26	22
84	57	141	382	327	709	1·93	9 72	16·99	3·86	·76	44·32	38·72	41·55	23
796	572	1,368	10,460	8,578	19,038	·48	6·23	10·62	2·10	·54	21·87	21·13	21·53	24
984	729	1,713	11,049	9,140	20,189	·49	6·16	10·51	2·06	·53	21·94	21·21	21·60	
126	52	178	1,214	697	1,911	...	·08	10·17	4 27	·44	17·84	14·62	16·51	25

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.			*Cholera.*		
			Male.	Female.	Total.	Male.	Female.	Total.
26	Saharunpore.	Seharunpore T., ...	23,272	20,572	43,844	1	...	1
27		Deobun T., ...	10,083	9,085	19,168	6	3	9
28		Gungoh T., ...	5,728	5,254	10,982	...	...	...
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...
30		In 22 Rural Circles, ...	438,875	360,135	799,010	19	16	35
		Total of District, ...	484,508	399,274	883,782	26	19	45
31	Moozuffer-nuggur.	Kyrannah T., ...	9,117	8,625	17,742	...	...	...
32		Kandlah T., ...	5,799	5,227	11,026	...	...	...
33		Moozuffernuggur T, ...	6,105	4,688	10,793	...	...	...
34		In 25 Rural Circles, ...	354,587	295,934	650,521	1	4	5
		Total of District, ...	375,608	314,474	690,082	1	4	5
35	Meerut.	Meerut T., ...	44,035	37,351	81,386	1	...	1
36		Haupper T., ...	7,601	6,943	14,544	1	1	2
37		Sirdhanna T., ...	6,508	5,961	12,469	...	...	...
38		In 40 Rural Circles, ...	627,260	538,255	1,165,515	34	16	50
		Total of District, ...	685,404	588,510	1,273,914	36	17	53
39	Boolundshuhur.	Khoorja T., ...	13,770	13,088	26,858	1	2	3
40		Secundrabad T., ...	9,514	8,835	18,349	1	1	2
41		Boolundshuhur T., ...	7,730	7,074	14,804	2	...	2
42		Shikarpore T., ...	5,798	5,540	11,338	1	...	1
43		In 29 Rural Circles, ...	456,870	408,374	865,244	18	17	35
		Total of District, ...	493,682	442,911	936,593	23	20	43
44	Allygurh.	Allygurh or Coel T., ...	31,762	26,777	58,539	19	8	27
45		Hattrass T., ...	12,718	10,871	23,589	20	14	34
46		Atrowlee T., ...	8,239	7,702	15,941	6	4	10
47		Secundra Rao T., ...	6,668	5,974	12,642	2	1	3
48		In 28 Rural Circles, ...	517,876	444,521	962,397	140	136	276
		Total of District, ...	577,263	495,845	1,073,108	187	163	350
49	Etah.	Kassgunge. T., ...	8,393	7,371	15,764	3	1	4
50		Soron T., ...	5,881	5,301	11,182	14	18	32
51		In 18 Rural Circles, ...	368,472	303,067	676,539	89	120	209
		Total of District, ...	382,746	320,739	703,485	106	139	245

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
41	46	87	511	468	979	116	77	193	26
18	12	30	171	154	325	63	51	114	27
57	75	132	55	71	126	35	40	75	28
1	2	3	83	66	149	2	1	3	29
1,927	1,632	3,559	6,017	4,578	10,595	1,062	690	1,752	30
2,044	1,767	3,811	6,837	5,337	12,174	1,278	859	2,737	
5	4	9	175	117	292	1	...	1	31
8	10	18	127	93	220	...	1	1	32
6	7	13	79	75	154	16	11	27	33
1,752	1,337	3,089	6,150	5,116	11 266	720	547	1,267	34
1,771	1,358	3,129	6,531	5,401	11,932	737	559	1,296	
26	30	56	751	727	1,478	205	169	374	35
26	39	65	205	210	415	129	116	245	36
4	...	4	141	67	208	...	1	1	37
1,349	1,034	2.383	13,002	10,970	23,972	1,096	712	1,808	38
1,405	1,103	2,508	14,099	11,974	26,073	1,430	998	2,428	
168	181	349	253	273	526	202	214	416	39
12	17	29	208	168	376	141	127	268	40
31	31	62	235	234	469	72	36	108	41
60	48	108	72	80	152	35	36	71	42
3.357	3,062	6,419	9,012	8,597	17,609	821	642	1,463	43
3,628	3,339	6,967	9,780	9,352	19,132	1,271	1,055	2,326	
154	141	295	304	380	684	354	333	687	44
64	48	112	210	205	415	232	253	485	45
124	102	226	204	208	412	14	11	25	46
42	44	86	76	70	146	12	12	24	47
2,130	1,829	3,959	6,853	5,553	12,406	1,622	1,309	2,931	48
2,514	2,164	4,678	7,647	6,416	14,063	2,234	1,918	4,152	
122	127	249	173	182	355	22	14	36	49
52	57	109	204	195	399	32	18	50	50
2,532	2,155	4,687	5,064	4,390	9,454	220	144	364	51
2,706	2,339	5,045	5,441	4,767	10,208	274	176	450	

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
26	Seharunpore.	Seharunpore T., ...	...	1	1	...	...	...	7	2	9	...	...	...	10
27		Deobun T., ...	...	...	...	1	2	3	5	3	8	...	...	...	11
28		Gungoh T., ...	...	...	...	1	1	2	2	...	2	...	...	...	4
29		Roorkee T., ...	...	...	...	1	1	2	...	...	...	1	...	1	3
30		In 22 Rural Circles, ...	5	6	11	18	16	34	61	54	115	48	30	78	238
		Total of District, ...	5	7	12	21	20	41	75	59	134	49	30	79	266
31	Moozuffernuggur.	Kyrannah T., ...	...	...	...	...	...	...	4	3	7	...	...	...	7
32		Kandlah T., ...	...	...	...	...	...	...	...	1	1	...	...	...	1
33		Moozuffernuggur T., ...	...	...	...	...	1	1	...	...	...	...	...	...	1
34		In 25 Rural Circles, ...	9	3	12	10	4	14	79	50	129	17	7	24	179
		Total of District, ...	9	3	12	10	5	15	83	54	137	17	7	24	188
35	Meerut.	Meerut T., ...	4	1	5	2	...	2	5	2	7	1	1	2	16
36		Haupper T., ...	...	...	...	...	...	...	6	3	9	...	...	...	9
37		Sirdhanna T., ...	...	...	...	1	...	1	...	...	...	1	...	1	2
38		In 40 Rural Circles, ...	1	5	6	8	4	12	82	85	167	20	11	31	216
		Total of District, ...	5	6	11	11	4	15	93	90	183	22	12	34	243
39	Boolundshuhur.	Khoorja T., ...	...	1	1	...	...	...	2	...	2	1	2	3	6
40		Secundrabad T., ...	...	...	...	1	...	1	2	...	2	2	...	2	5
41		Boolundshuhur T., ...	...	...	...	...	...	...	5	3	8	...	...	...	8
42		Shikarpore T., ...	...	...	...	1	...	1	2	...	2	...	...	...	3
43		In 29 Rural Circles, ...	4	7	11	15	7	22	73	57	130	20	22	42	205
		Total of District, ...	4	8	12	17	7	24	84	60	144	23	24	47	227
44	Allygurh.	Allygurh or Coel T., ...	...	...	...	...	...	...	7	3	10	...	...	...	10
45		Hatrass T., ...	2	...	2	2	1	3	...	1	1	...	1	1	7
46		Atrowlee T., ...	2	1	3	2	...	2	5	2	7	2	1	3	15
47		Secundra Rao T., ...	...	...	...	...	...	...	1	2	3	4	2	6	9
48		In 28 Rural Circles, ...	12	15	27	16	5	21	87	61	148	22	28	50	246
		Total of District, ...	16	16	32	20	6	26	100	69	169	28	32	60	287
49	Etah.	Kassgunge T., ...	...	...	...	...	...	...	...	...	...	1	...	1	1
50		Soron T., ...	...	1	1	1	...	1	2	2	4	...	...	...	6
51		In 18 Rural Circles, ...	8	26	34	6	4	10	28	28	56	10	12	22	122
		Total of District, ...	8	27	35	7	4	11	30	30	60	11	12	23	129

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.								
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
283	265	548	959	859	1 818	·02	1·98	22·32	4·40	·22	41·20	41·75	41·46	26
28	25	53	292	250	542	·46	1·56	16·95	5 94	·57	28·95	27·51	28·27	27
33	16	49	183	203	386	...	12·02	11·47	6·82	·36	31·94	38·63	35·14	28
10	3	13	98	73	171	...	·27	13·82	·27	·27	14·96	17·26	15·86	29
1,117	845	1,962	10,274	7,867	18,141	·04	4·45	13·26	2·19	·29	23·40	21·84	22·70	30
1,471	1,154	2,625	11,806	9,252	21,058	·05	4 31	13·77	2·41	·30	24·36	23·17	23·82	
6	2	8	191	126	317	...	·50	16·45	·05	0·39	20·95	14·60	17·86	31
...	...	...	135	105	240	...	1·63	19·95	·09	0·09	23·28	20·03	21·76	32
29	24	53	130	118	248	...	1·20	14·26	2·50	·09	21·29	25·17	22·97	33
320	219	539	9,058	7,287	16,345	...	4·74	17·31	1·94	·27	25·55	24·62	25·12	34
355	245	600	9,514	7,636	17,150	...	4·53	17·29	1·87	·27	25·30	24·28	24·85	
9	10	19	1,004	940	1,944	·01	·68	18·16	4·59	·19	22·80	25·16	23·88	35
41	18	59	408	387	795	·13	4·46	28·53	16·84	·61	53·67	55·73	54·66	36
4	2	6	151	70	221	...	·32	16·68	0·8	·16	23·20	11·74	17·72	37
836	684	1,520	16,428	13,521	29,949	·04	2 04	20·56	1·55	·18	26·19	25·12	25·69	38
890	714	1,604	17,991	14,918	32,909	·04	1·96	20·46	1·90	·19	26·25	25·34	25·83	
173	134	307	800	807	1,607	·11	12·99	19·58	15·47	·22	58·09	61·65	59·83	39
1	1	2	368	314	682	·10	1·58	20·49	14·60	·27	36·67	35·54	37·16	40
20	29	49	365	333	698	·13	4·18	31·68	7·29	·54	47·21	47·07	47·14	41
1	1	2	172	165	337	·08	9·52	13·40	6·26	·26	29·66	29·78	29·72	42
680	548	1,228	14,000	12,959	26,959	·04	7·41	20·35	1·69	·23	30·54	31·73	31·15	43
875	713	1,588	15,705	14,578	30,283	·04	7·43	20·42	2·48	·24	31·81	32·91	32·34	
189	143	332	1,027	1,008	2,035	·46	5·04	11·68	11·73	·17	32 33	37·64	34·76	44
70	39	109	600	562	1,162	1·44	4·74	17·59	20·56	·29	47·17	51·69	49·26	45
17	19	36	376	348	724	·62	14·17	25·84	1·56	·94	45·63	45·18	45·41	46
22	31	53	159	162	321	·23	6·80	11·54	1·90	·71	23·84	27·11	25·39	47
479	309	788	11,361	9,245	20,606	·28	4·11	12·89	3·04	·25	21·93	20·79	21·41	48
777	541	1,318	13,523	11,325	24,848	·32	4·36	13·10	3·87	·26	27·42	22·83	23·15	
50	26	76	371	350	721	0·25	15·79	22·52	2·28	0·06	44·20	47·48	45·73	49
10	2	12	315	293	608	2·86	9·74	35·68	4·47	0·53	53·56	55·27	54·37	50
513	373	886	8,470	7,252	15,722	0·30	6·92	13·97	0·53	0·18	22·98	23·54	23·23	51
573	401	974	9,156	7,895	17,051	·34	7·17	14·51	·63	·18	23·92	24·61	24·23	

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.			*Cholera.*		
			Male.	Female.	Total.	Male.	Female.	Total.
52	Muttra.	Muttra T., ...	30,786	28,495	59,281	41	26	67
53		Bindrabun T., ...	10,602	9,748	20,350	20	12	32
54		Juleysur T., ...	8,110	7,584	15,694	2	2	4
55		Kosee, ...	6,568	6,202	12,770	9	16	25
56		In 28 Rural Circles, ...	424,549	354,711	779,260	112	81	193
		Total of District, ...	480,615	406,740	887,355	184	137	321
57	Furruckabad.	Furruckabad T., ...	40,156	39,048	79,204	7	10	17
58		Kunouj T., ...	8,772	8,321	17,093	...	...	...
59		Kaimgung T., ...	5,287	5,036	10,323	3	1	4
60		In 17 Rural Circles, ...	445,507	366,621	812,128	13	29	42
		Total of District, ...	499,722	419,026	918,748	23	40	63
61	Mynpoory.	Mynpoory, T., ...	11,326	9,851	21,177	2	1	3
62		Shekoabad T., ...	5,367	4,702	10,069	78	69	147
63		In 17 Rural Circles, ...	410,262	324,275	734,537	205	169	374
		Total of District, ...	426,955	338,828	765,783	285	239	524
64	Agra.	Agra T., ...	79,344	69,664	149,008	80	51	131
65		Ferozabad T., ...	7,395	6,860	14,255	18	15	33
66		In 34 Rural Circles, ...	502,823	428,098	930,921	179	98	277
		Total of District, ...	589,562	504,622	1,094,184	277	164	441
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	6	4	10
68		In 20 Rural Circles, ...	353,584	284,448	638,032	22	14	36
		Total of District, ...	369,928	298,653	668,581	28	18	46
69	Cawnpore.	Cawnpore T., ...	67,663	55,107	122,770	38	29	67
70		In 26 Rural Circles, ...	551,455	481,214	1,032,669	44	38	82
		Total of District, ...	619,118	536,321	1,155,439	82	67	149
71	Futtehpore.	Futtehpore T., ...	10,297	9,582	19,879	99	77	176
72		In 22 Rural Circles, ...	335,236	308,700	643,936	281	209	490
		Total of District, ...	345,533	318,282	663,815	380	286	666
73	Jounpore.	Jounpore T., ...	11,404	11,923	23,327	27	25	52
74		In 18 Rural Circles, ...	534,296	468,246	1,002,542	305	258	563
		Total of District, ...	545,700	480,169	1,025,869	332	283	615
75	Humeerpore.	Raath T., ...	7,094	7,421	14,515	...	...	...
76		In 29 Rural Circles, ...	269,102	245,520	514,622	25	29	54
		Total of District, ...	276,196	252,941	529,137	25	29	54

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
79	74	153	464	418	882	272	270	542	52
18	12	30	222	210	432	180	143	323	53
40	44	84	108	102	210	83	59	142	54
17	9	26	109	81	190	74	74	148	55
904	642	1,546	4,949	3,921	8,870	902	577	1,479	56
1,058	781	1,839	5,852	4,732	10,584	1,511	1,123	2,634	
83	83	166	677	575	1,252	140	91	231	57
4	10	14	159	124	283	...	1	1	58
223	192	415	558	474	1,032	9	1	10	59
508	390	898	3,786	2,566	6,352	340	255	595	60
818	675	1,493	5,180	3,739	8,919	489	348	837	
4	2	6	349	297	646	2	...	2	61
28	38	66	154	150	304	3	...	3	62
414	328	742	6,366	4,672	11,038	178	127	305	63
446	368	814	6,869	5,119	11,988	183	127	310	
253	223	476	1,324	1,482	2,806	533	445	978	64
41	25	66	181	162	343	2	2	4	65
1,497	1,140	2,637	6,281	4,753	11,034	893	577	1,470	66
1,791	1,388	3,179	7,786	6,397	14,183	1,428	1,024	2,452	
52	43	95	235	273	508	57	36	93	67
208	172	380	5,495	3,958	9,453	467	305	772	68
260	215	475	5,730	4,231	9,961	524	341	865	
442	392	834	1,099	954	2,053	171	117	288	69
2,482	2,163	4,645	10,179	8,431	18,610	788	579	1,367	70
2,924	2,555	5,479	11,278	9,385	20,663	959	696	1,655	
1	1	2	219	184	403	48	38	86	71
299	248	547	4,227	3,486	7,713	1,480	1,117	2,597	72
300	249	549	4,446	3,670	8,116	1,528	1,155	2,683	
11	11	22	646	545	1,191	12	6	18	73
523	439	962	10,327	7,220	17,547	300	156	456	74
534	450	984	10,973	7,765	18,738	312	162	474	
...	...	...	67	70	137	74	71	145	75
50	50	100	3,968	2,780	6,748	2,080	1,328	3,408	76
50	50	100	4,035	2,850	6,885	2,154	1,399	3,553	

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
52	Muttra.	Muttra T., ...	4	1	5	1	1	2	13	13	26	1	...	1	34
53		Bindrabun T., ...	...	...	...	1	...	1	7	...	7	...	...	...	8
54		Juleysur T., ...	...	...	...	1	...	1	3	3	6	...	...	...	7
55		Kosee T., ...	1	...	1	1	...	1	3	...	3	...	...	...	5
56		In 28 Rural Circles, ...	10	6	16	14	6	20	122	102	224	12	18	30	290
		Total of District, ...	15	7	22	18	7	25	148	118	266	13	18	31	344
57	Furruckabad.	Furruckabad T., ...	1	5	6	10	5	15	30	20	50	3	1	4	75
58		Kunouj T., ...	...	...	...	...	...	...	...	...	...	1	...	1	1
59		Kaimgunge T., ...	3	4	7	...	...	...	11	4	15	...	2	2	24
60		In 17 Rural Circles, ...	31	56	87	29	16	45	118	73	191	23	42	65	388
		Total of District, ...	35	65	100	39	21	60	159	97	256	27	45	72	488
61	Mynpoory.	Mynpoory T., ...	2	1	3	...	...	...	...	2	2	...	...	...	5
62		Shekoabad T., ...	1	...	1	...	...	...	...	...	...	...	1	1	2
63		In 17 Rural Circles, ...	11	31	42	18	4	22	105	54	159	15	21	36	259
		Total of District, ...	14	32	46	18	4	22	105	56	161	15	22	37	266
64	Agra.	Agra T., ...	5	2	7	44	23	67	40	23	63	4	...	4	141
65		Ferozabad T., ...	...	...	...	...	...	...	...	1	1	...	...	...	1
66		In 34 Rural Circles, ...	11	38	49	24	7	31	137	124	261	12	25	37	378
		Total of District, ...	16	40	56	68	30	98	177	148	325	16	25	41	520
67	Etawah.	Etawah T., ...	3	1	4	1	1	2	5	2	7	1	1	2	15
68		In 20 Rural Circles, ...	1	9	10	10	8	18	48	21	69	31	28	59	156
		Total of District, ...	4	10	14	11	9	20	53	23	76	32	29	61	171
69	Cawnpore.	Cawnpore T., ...	2	4	6	2	2	4	9	2	11	3	1	4	25
70		In 26 Rural Circles, ...	11	24	35	15	8	23	161	131	292	71	84	155	505
		Total of District, ...	13	28	41	17	10	27	170	133	303	74	85	159	530
71	Futtehpore.	Futtehpore T., ...	...	1	1	...	...	...	2	...	2	...	...	...	3
72		In 22 Rural Circles, ...	5	35	40	14	13	27	142	137	279	49	73	122	468
		Total of District, ...	5	36	41	14	13	27	144	137	281	49	73	122	471
73	Jounpore.	Jounpore T., ...	...	...	...	...	...	...	2	3	5	4	6	10	15
74		In 18 Rural Circles, ...	12	41	53	29	6	35	192	153	345	61	61	122	555
		Total of District, ...	12	41	53	29	6	35	194	156	350	65	67	132	570
75	Humeerpore.	Raath T., ...	...	3	3	5	4	9	4	10	14	...	...	...	26
76		In 29 Rural Circles, ...	17	39	56	28	22	50	68	79	147	30	53	83	336
		Total of District, ...	17	42	59	33	26	59	72	89	161	30	53	83	362

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.								
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
295	245	540	1,170	1,048	2,218	1·13	2·58	14·87	9·14	·57	38·00	36·77	37·41	52
45	50	95	493	427	920	1·57	1·47	21·22	15·87	·39	46·50	43·80	45·20	53
83	80	163	320	290	610	·25	5·35	13·38	9·04	·44	39·45	38·23	38·86	54
42	35	77	256	215	471	1·95	2·03	14·87	11·59	·39	38·97	34·66	36·88	55
378	214	592	7,403	5,567	12,970	·24	1·98	11·38	1·39	·37	17·43	15·69	16·64	56
843	624	1,467	9,642	7,547	17,189	·36	2·07	11·92	2·96	·38	20·06	18·05	19·37	
248	123	371	1,199	913	2,112	·21	2·09	15·80	2·91	·94	29·85	23·38	26·66	57
14	9	23	178	144	322	...	·81	16·55	·05	·05	20·29	17·30	18·83	58
3	3	6	810	681	1,491	·38	40·20	99·97	·96	2·32	153·20	135·22	144·43	59
195	186	381	5 043	3,613	8,656	·05	1·10	7·82	·73	·47	11·31	9 85	10·66	60
460	321	781	7,230	5,351	12,581	·06	1·62	9·70	·91	·53	14·46	12·77	13·69	
14	6	20	373	309	682	·14	·28	30·50	·09	·23	32·93	31·36	32·20	61
1	...	1	265	258	523	14 59	6·55	30·19	·29	·19	49 39	54·87	51·94	6
175	136	311	7,487	5,542	13,029	·50	1·01	15·02	·41	·35	18·23	17·09	17·73	
190	142	332	8,125	6,109	14,234	·68	1·06	15·65	·40	·34	19 03	18·02	18·58	
585	362	947	2,868	2,611	5,479	·87	3·19	18 83	6·56	·94	36·14	37·47	36·77	64
4	7	11	246	212	458	2·31	4·63	24·06	·28	·07	33·26	30·90	32·12	65
353	316	669	9,387	7,078	16,465	·29	2·83	11·85	1·57	·40	18·66	16·53	17·68	66
942	685	1,627	12,501	9,901	22,402	·40	2·90	12·96	2·24	·47	21·20	19·62	20·47	
159	154	313	519	515	1,034	·32	3·10	16·62	3·04	·49	31·75	36·25	33·84	67
241	180	421	6,523	4,695	11,218	·05	·59	14·81	1·20	·24	18·44	16·50	17·58	68
400	334	734	7,042	5,210	12,252	·06	·71	14·89	1·29	·25	19·03	17·44	18·32	
327	207	534	2,093	1,708	3,801	·54	6·79	16·72	2·34	·20	30·93	30·99	30·96	69
829	599	1,428	14,580	12,057	26,637	·08	4·49	18·02	1·32	·48	26·43	25·05	25·79	70
1,156	806	1,962	16,673	13,765	30,438	·12	4·74	17·88	1·43	·45	26·93	25·66	26·34	
60	30	90	429	331	760	8·85	·10	20·27	4 32	·15	41·66	34·54	38·23	71
833	601	1,434	7,330	5,919	13,249	·76	·84	11·97	4·03	·72	21·36	19·17	20·57	72
893	631	1,524	7,759	6,250	14,009	1·03	·82	12·22	4·04	·70	22·45	19·63	21·10	
148	116	264	850	712	1,562	2·23	·94	51·05	·77	·64	74·53	59·71	66·96	73
481	298	779	12,230	8,632	20,862	·56	·95	17·50	·45	·55	22·89	18·43	20·80	74
629	414	1,043	13,080	9,344	22,424	·59	·95	18·26	·46	·55	23·98	19·45	21·86	
45	28	73	195	186	381	...	...	9·43	9·99	1·79	27·48	25·06	26·24	75
896	678	1,574	7,162	5,058	12,220	·10	·19	13·11	6·62	·65	26·61	20·60	23·74	76
941	706	1,647	7,357	5,244	12,601	·10	·18	13·01	6·71	·68	26·63	20·73	23·81	

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.			*Cholera.*		
			Male.	Female.	Total.	Male.	Female.	Total.
77	BANDA.	Banda T., ...	14,225	13,521	27,746	49	51	100
78		In 28 Rural Circles, ...	345,540	324,325	669,865	437	253	690
		Total of District, ...	359,765	337,846	697,611	486	304	790
79	ALLAHABAD.	Allahabad T., ...	80,644	63,049	143,693	14	12	26
80		In 33 Rural Circles, ...	634,466	616,086	1,250,552	467	383	850
		Total of District, ...	715,110	679,135	1,394,245	481	395	876
81	GORUCK-PORE.	Goruckpore T., ...	27,544	23,573	51,117	...	...	...
82		In 35 Rural Circles, ...	1,050,528	917,705	1,968,233	253	176	429
		Total of District, ...	1,078,072	941,278	2,019,350	253	176	429
83	BUSTEE.	Total of District containing 27 Circles,	784,691	688,303	1,472,994	71	35	106
84	AZIMGURH.	Azimgurh T., ...	8,756	7,014	15,770	38	48	86
85		Mow T., ...	5,794	5,521	11,315	21	20	41
86		In 27 Rural Circles, ...	811,595	692,730	1,504,325	525	383	908
		Total of District, ...	826,145	705,265	1,531,410	584	451	1,035
87	GHAZEE-PORE.	Ghazeepore T., ...	19,582	19,271	38,853	64	57	121
88		In 27 Rural Circles, ...	676,990	629,558	1,306,548	639	544	1,183
		Total of District, ...	696,572	648,829	1,345,401	703	601	1,304
89	BENARES.	Benares T., ...	89,763	85,425	175,188	272	160	432
90		Ramnuggur T., ...	6,256	5,697	11,953	24	11	35
91		In 14 Rural Circles, ...	310,325	296,233	606,558	680	595	1,275
		Total of District, ...	406,344	387,355	793,699	976	766	1,742
92	MIRZAPORE.	Mirzapore T., ...	34,820	32,454	67,274	58	29	87
93		Chunar T., ...	4,989	5,165	10,154	10	12	22
94		In 23 Rural Circles, ...	480,687	457,178	937,865	625	566	1,191
		Total of District, ...	520,496	494,797	1,015,293	693	607	1,300
95	JALOUN.	Calpee T., ...	8,021	7,549	15,570	26	20	46
96		Koonch T., ...	7,309	7,139	14,448	...	...	...
97		Jaloun T., ...	5,309	4,888	10,197	...	...	...
98		In 21 Rural Circles, ...	195,968	168,201	364,169	2	...	2
		Total of District, ...	216,607	187,777	404,384	28	20	48
99	JHANSIE.	Mow T., ...	8,205	8,223	16,428	...	...	...
100		In 24 Rural Circles, ...	159,314	141,993	301,307	...	2	2
		Total of District, ...	167,519	150,216	317,735	...	2	2
101	LULLIT-PORE.	Total of District containing 20 Circles,	111,625	101,003	212,628	...	...	...
		GRAND TOTAL FOR THE PROVINCE, ...	16,406,833	14,362,223	30,769,056	8,458	6,810	15,268

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1873.—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
2	10	12	324	258	582	153	128	281	77
179	139	318	6,084	4,308	10,392	1,451	1,028	2,479	78
181	149	330	6,408	4,566	10,974	1,604	1,156	2,760	
287	234	521	413	375	788	33	26	59	79
634	610	1,244	9,430	7,335	16,765	2,088	1,543	3,631	80
921	844	1,765	9,843	7,710	17,553	2,121	1,569	3,690	
306	224	530	993	589	1,582	20	8	28	81
7,935	6,463	14,398	21,211	14,235	35,446	1,562	722	2,284	82
8,241	6,687	14,928	22,204	14,824	37,028	1,582	730	2,312	
4,869	4,076	8,945	9,701	6,781	16,482	343	120	463	83
1	2	3	194	213	407	46	25	71	84
3	5	8	106	79	185	15	17	32	85
1,265	1,041	2,306	10,674	7,955	18,629	1,587	1,102	2,689	86
1,269	1,048	2,317	10,974	8,247	19,221	1,648	1,144	2,792	
13	14	27	403	347	750	93	84	177	87
1,149	1,017	2,166	13,974	10,563	24,537	760	507	1,267	88
1,162	1,031	2,193	14,377	10,910	25,287	853	591	1,444	
169	120	289	1,694	1,310	3,004	241	169	410	89
10	5	15	73	52	125	37	22	59	90
139	155	294	6,752	5,439	12,191	867	495	1,362	91
318	280	598	8,519	6,801	15,320	1,145	686	1,831	
76	63	139	815	725	1,540	157	127	284	92
21	12	33	184	180	364	24	36	60	93
363	347	710	9,337	7,518	16,855	995	583	1,578	94
460	422	882	10,336	8,423	18,759	1,176	746	1,922	
...	1	1	213	151	364	16	14	30	95
...	...	...	104	73	177	28	16	44	96
1	...	1	107	102	209	1	1	2	97
58	47	105	3,165	2,204	5,369	400	280	680	98
59	48	107	3,589	2,530	6,119	445	311	756	
1	...	1	147	97	244	85	57	142	99
34	28	62	2,567	1,976	4,543	392	266	658	100
35	28	63	2,714	2,073	4,787	477	323	800	
10	20	30	1,142	984	2,126	595	418	1,013	101
52,366	44,727	97,093	257,242	201,110	458,352	40,468	29,173	69,641	

APPEN

ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
77	Banda.	Banda, ...	3	1	4	2	...	2	4	7	11	1	2	3	20
78		In 28 Rural Circles, ...	17	40	57	29	10	39	138	142	280	166	221	387	763
		Total of District, ...	20	41	61	31	10	41	142	149	291	167	223	390	783
79	Allahabad.	Allahabad T., ...	1	3	4	...	2	2	3	7	10	...	...	...	16
80		In 33 Rural Circles, ...	21	35	56	18	7	25	266	277	543	109	154	263	887
		Total of District, ...	22	38	60	18	9	27	269	284	553	109	154	263	903
81	Goruckpore.	Goruckpore T., ...	1	1	2	...	...	...	3	...	3	4	8	12	17
82		In 35 Rural Circles, ...	8	32	40	20	14	34	251	213	464	179	274	453	991
		Total of District, ...	9	33	42	20	14	34	254	213	467	183	282	465	1,008
83	Bustee.	Total of District containing 27 Circles, ...	6	10	16	24	16	40	194	179	373	87	116	203	632
84	Azimgurh.	Azimgurh T, ...	...	...	...	...	...	...	1	...	1	...	1	1	2
85		Mow T., ...	...	...	...	3	1	4	1	1	2	2	3	5	11
86		In 27 Rural Circles, ...	14	80	94	32	11	43	246	366	612	60	60	120	869
		Total of District, ...	14	80	94	35	12	47	248	367	615	62	64	126	882
87	Ghazeepore.	Ghazeepore T., ...	1	...	1	5	2	7	1	5	6	1	...	1	15
88		In 27 Rural Circles, ...	23	47	70	47	25	72	183	260	443	30	55	85	670
		Total of District, ...	24	47	71	52	27	79	184	265	449	31	55	86	685
89	Benares.	Benares T., ...	4	4	8	4	7	11	26	21	47	3	3	6	72
90		Ramnuggur T., ...	...	...	...	2	1	3	...	1	1	2	...	2	6
91		In 14 Rural Circles, ...	8	19	27	11	9	20	79	118	197	37	48	85	329
		Total of District, ...	12	23	35	17	17	34	105	140	245	42	51	93	407
92	Mirzapore.	Mirzapore T., ...	1	3	4	1	...	1	7	7	14	2	1	3	22
93		Chunar T., ...	1	1	2	1	...	1	3	2	5	2	5	7	15
94		In 23 Rural Circles, ...	15	45	60	43	21	64	163	190	353	80	135	215	692
		Total of District, ...	17	49	66	45	21	66	173	199	372	84	141	225	729
95	Jaloun.	Calpee T., ...	...	2	2	...	...	...	2	...	2	...	1	1	5
96		Koonch T.,... ...	3	2	5	5	1	6	1	1	2	2	...	2	15
97		Jaloun T., ...	2	3	5	...	...	...	1	1	2	...	2	2	9
98		In 21 Rural Circles, ...	12	37	49	14	7	21	32	40	72	37	49	86	228
		Total of District, ...	17	44	61	19	8	27	36	42	78	39	52	91	257
99	Jhansie.	Mow T., ...	1	5	6	...	...	...	3	2	5	...	...	...	11
100		In 24 Rural Circles, ...	21	45	66	17	4	21	53	72	125	27	34	61	273
		Total of District, ...	22	50	72	17	4	21	56	74	130	27	34	61	284
101	Lullit-pore.	Total of District containing 20 Circles, ...	5	13	18	3	3	6	33	46	79	26	41	67	170
		Grand Total for the Province, ...	491	1,044	1,535	862	474	1,336	4,188	3,883	8,071	1,854	2,434	4,288	15,230

DIX C.

No. III.

Towns of the North-Western Provinces during the year 1873.—(concluded.)

10.			11.			12.									13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.									
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fever.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
60	36	96	598	493	1,091	3·60	·43	20·97	10·12	·72	42·03	36·46	39·32	77
411	261	672	8,912	6,402	15,314	1·03	·47	15·51	3·70	1·13	25·79	19·73	22·86	78
471	297	768	9,510	6,895	16,405	1·13	·47	15·73	3·75	1·12	26·43	20·40	23·51	
101	63	164	852	722	1,574	·18	3·62	5·48	·41	·11	10·56	11·45	10·95	79
871	542	1,413	13,904	10,886	24,790	·67	·99	13·40	2·90	·70	21·91	17·66	19·82	80
972	605	1,577	14,756	11,608	26,364	·62	1·26	12·58	2·64	·64	20·63	17·09	18·89	
22	8	30	1,549	838	2,187	...	10·36	30·94	·54	·33	48·97	35·54	42·78	81
2,405	1,827	4,232	33,824	23,956	57,780	·21	7·31	18·00	1·16	·50	32·10	26·10	29·35	82
2,427	1,835	4,262	35,173	24,794	59,967	·21	7·39	18·33	1·14	·49	32·62	26·34	29·69	
584	445	1,029	15,879	11,778	27,657	·07	6·07	11·18	·31	·42	20·23	17·11	18·77	83
...	...	...	280	289	569	5·45	·19	25·80	4·50	·12	31·97	41·20	36·08	84
21	25	46	172	151	323	3·62	·70	16·35	2·82	·97	29·68	27·35	28·54	85
460	369	829	14,863	11,367	26,230	·60	1·53	12·38	1·78	·57	18·31	16·40	17·43	86
481	394	875	15,315	11,807	27,122	·67	1·51	12·55	1·82	·57	18·57	16·74	17·71	
39	31	70	620	540	1,160	3·11	·69	19·30	4·55	·38	31·66	28·02	29·85	87
262	227	489	17,067	13,245	30,312	·90	1·65	18·78	·96	·51	25·21	21·03	23·20	88
301	258	559	17,687	13,785	31,472	·96	1·63	18·79	1·07	·50	25·39	21·24	23·39	
197	153	350	2,610	1,947	4,557	2·46	1·64	17·14	2·34	·41	29·07	22·75	26·01	89
6	6	12	154	98	252	2·92	1·25	10·45	4·93	·50	24·61	17·20	21·08	90
496	382	878	9,069	7,260	16,329	2·10	·48	20·09	2·24	·54	29·22	24·50	26·92	91
699	541	1,240	11,833	9,305	21,138	2·19	·75	19·30	2·30	·51	29·12	24·02	26·63	
401	276	677	1,518	1,231	27,49	1·23	2·06	22·89	4·29	·3	43·59	37·93	40·86	92
70	49	119	316	297	613	2·16	3·25	35·84	5·90	1·47	63·33	57·50	60·37	92
1,236	729	1,965	12,857	10,134	22,991	1·26	·75	17·97	1·68	·73	26·74	22·16	24·51	93
1,707	1,054	2,761	14,691	11,662	26,353	1·28	·86	18·47	1·89	·71	28·22	23·56	25·95	
64	36	100	321	225	546	2·95	·06	23·37	1·92	·32	40·02	29·80	35·07	94
31	12	43	174	105	279	...	...	12·25	3·04	1·03	23·80	14·71	19·31	95
6	2	8	118	111	229	...	·09	20·49	0·19	·88	22·22	22·70	22·45	96
397	283	680	4,117	2,947	7,064	...	·28	14·74	1·86	·62	21·00	17·52	19·39	97
498	333	831	4,730	3,388	8,118	·11	·24	15·13	1·86	·63	21·83	18·04	20·07	
11	12	23	248	173	421	...	·06	14·85	8·64	·66	30·22	21·03	25·62	98
389	257	646	3,500	2,684	6,184	...	·20	15·07	2·18	·90	21·96	18·90	20·52	99
400	269	669	3,748	2,857	6,60[illegible]	...	·19	15·06	2·51	·89	22·37	19·01	20·78	100
600	469	1,069	2,414	1,994	4,408	...	·14	9·99	4·76	·79	21·62	19·74	20·73	101
28,447	20,893	49,340	3,94,376	3,10,548	7,04,924	·49	3·15	14·89	2·26	·49	24·03	21·62	22·91	

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to age in the Rural Circles and Towns of the North-Western Provinces during the year 1873.

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	Infants (children unable to walk.)		Boys.	Girls.	Adults.		Old People.		Total.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
1	Kumaon.	Total of District containing 8 Circles, ...	1,221	964	1,271	1,078	1,727	1,373	1,940	1,570	6,159	4,985	11,144
2	Gurhwal.	Total of District containing 12 Circles, ...	1,060	850	774	649	644	566	1,016	642	3,494	2,707	6,201
3	Terai.	Kasheepore T., ...	78	49	84	61	98	66	78	67	338	243	581
4		In 9 Rural Circles, ...	432	368	591	484	898	693	907	693	2,828	2,238	5,066
		Total of District, ...	510	417	675	545	996	759	985	760	3,166	2,481	5,647
5	Bijnour.	Nugeena T., ...	73	72	20	16	26	26	41	35	160	149	309
6		Nujeebabad T., ...	67	39	50	21	75	53	88	68	280	181	461
7		Bijnour T., ...	48	44	21	18	24	26	40	24	133	112	245
8		Sherkote T., ...	25	8	35	15	32	30	52	32	144	85	229
9		Chandpore T., ...	100	62	46	28	16	36	53	51	215	177	392
10		In 27 Rural Circles, ...	2,269	1,971	1,725	1,480	1,417	1,056	2,146	1,574	7,557	6,081	13,638
		Total of District, ...	2,582	2,196	1,897	1,578	1,590	1,227	2,420	1,784	8,489	6,785	15,274
11	Moradabad.	Moradabad T., ...	26	26	1	3	14	10	14	17	55	56	111
12		Sumbhul T., ...	19	23	30	21	4	6	15	16	68	66	134
13		Amroha T., ...	249	194	122	100	80	91	122	135	573	520	1,093
14		Chundowsee T., ...	183	124	107	101	69	90	107	82	466	397	863
15		In 22 Rural Circles, ...	3,533	3,230	3,950	2,897	2,019	1,608	3,048	2,563	12,550	10,298	22,848
		Total of District, ...	4,010	3,597	4,210	3,122	2,186	1,805	3,306	2,813	13,712	11,337	25,049
16	Bareilly.	Bareilly T., ...	493	494	535	536	203	263	411	379	1,642	1,672	3,314
17		Phillibheet T., ...	105	73	134	134	120	73	129	99	488	379	867
18		Aonla T., ...	132	136	162	109	97	55	129	125	520	425	945
19		In 27 Rural Circles, ...	3,305	2,980	5,316	4,123	2,801	1,928	4,367	3,395	15,789	12,426	28,215
		Total of District, ...	4,035	3,683	6,147	4,902	3,221	2,319	5,036	3,998	18,439	14,902	33,341
20	Shahjehanpore.	Shahjehanpore T., ...	334	294	293	267	124	158	264	223	1,015	942	1,957
21		In 23 Rural Circles, ...	3,971	3,651	4,734	4,127	2,072	1,580	4,022	3,016	14,799	12,374	27,173
		Total of District, ...	4,305	3,945	5,027	4,394	2,196	1,738	4,286	3,239	15,814	13,316	29,130

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to age in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	Infants (children unable to walk.)		Boys.	Girls.	Adults.		Old People.		Total.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
22	Budaon.	Budaon T., ...	76	82	66	55	14	42	51	56	207	235	442
23		Suheswan T., ...	122	97	123	111	46	48	91	71	382	327	709
24		In 18 Rural Circles, ...	2,825	2,420	3,636	2,697	1,515	1,354	2,484	2,107	10,460	8,578	19,038
		Total of District, ...	3,023	2,599	3,825	2,863	1,575	1,444	2,626	2,234	11,049	9,140	20,189
25	Dehra Doon.	Total of District containing 6 Circles, ...	195	115	181	110	425	232	413	240	1,214	697	1,911
26	Seharunpore.	Seharunpore T., ...	407	364	147	123	177	178	228	194	959	859	1,818
27		Deobun T., ...	115	77	59	41	46	60	72	72	292	250	542
28		Gungoh T., ...	84	91	27	34	19	25	53	53	183	203	386
29		Roorkee T., ...	40	20	17	7	15	24	26	22	98	73	171
30		In 22 Rural Circles, ...	2,735	2,157	2,663	1,837	2,211	1,759	2,665	2,114	10,274	7,867	18,141
		Total of District, ...	3,381	2,709	2,913	2,042	2,468	2,046	3,044	2,455	11,806	9,252	21,058
31	Moozuffernuggur.	Kyrannah T., ...	48	15	55	24	29	32	59	55	191	126	317
32		Kandlah T., ...	46	45	24	11	29	15	36	34	135	105	240
33		Moozuffernuggur T., ...	43	44	35	21	23	24	29	29	130	118	248
34		In 25 Rural Circles, ...	2,493	1,966	2,568	1,775	1,674	1,524	2,323	2,022	9,058	7,287	16,345
		Total of District, ...	2,630	2,070	2,682	1,831	1,755	1,595	2,447	2,140	9,514	7,636	17,150
35	Meerut.	Meerut T., ...	384	307	136	121	179	212	305	300	1,004	940	1,944
36		Haupper T., ...	144	124	113	103	55	57	96	103	408	387	795
37		Sirdhanna T., ...	21	11	22	8	29	16	79	35	151	70	221
38		In 40 Rural Circles, ...	2,983	2,499	4,342	2,809	3,622	3,501	5,481	4,712	16,428	13,521	29,949
		Total of District, ...	3,532	2,941	4,613	3,041	3,885	3,786	5,961	5,150	17,991	14,918	32,909
39	Boolundshuhur.	Khoorja T., ...	244	231	320	296	81	118	155	162	800	807	1,607
40		Secundrabad T., ...	154	130	89	66	36	46	89	72	368	314	682
41		Boolund-shuhur T., ...	146	149	91	65	56	60	72	59	365	333	698
42		Shikarpore T., ...	58	64	67	57	21	19	26	25	172	165	337
43		In 29 Rural Circles, ...	3,560	3,429	5,503	4,651	1,922	1,957	3,015	2,922	14,000	12,959	26,964
		Total of District, ...	4,162	4,003	6,070	5,135	2,116	2,200	3,357	3,240	15,705	14,578	30,283

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to age in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	Infants (children unable to walk.)		Boys.	Girls.	Adults.		Old People.		Total.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
44	Allygurh.	Allygurh or Coel T., ...	353	336	338	308	98	152	238	212	1,027	1,008	2,035
45		Hatrass T., ...	160	158	209	182	100	105	131	117	600	562	1,162
46		Atrowlee T., ...	94	95	186	133	34	45	62	75	376	348	724
47		Secundra Rao T., ...	44	55	53	57	23	24	39	26	159	162	321
48		In 28 Rural Circles, ...	2,632	2,128	4,313	3,176	1,599	1,492	2,817	2,449	11,361	9,245	20,606
		Total of District, ...	3,283	2,772	5,099	3,856	1,854	1,818	3,287	2,879	13,523	11,325	24,848
49	Etah.	Kassgunge T., ...	196	195	71	57	43	34	61	64	371	350	721
50		Soron T., ...	91	71	115	103	33	47	76	72	315	293	608
51		In 18 Rural Circles, ...	2,600	2,481	2,682	2,045	1,162	1,047	2,026	1,679	8,470	7,252	15,722
		Total of District, ...	2,887	2,747	2,868	2,205	1,238	1,128	2,163	1,815	9,156	7,895	17,051
52	Muttra.	Muttra T, ...	352	316	270	240	181	205	367	287	1,170	1,048	2,218
53		Bindrabun T., ...	98	81	99	59	104	121	192	166	493	427	920
54		Juleysur T., ...	112	82	86	85	38	57	84	66	320	290	610
55		Kosee T., ...	68	49	90	74	27	30	71	62	256	215	471
56		In 28 Rural Circles, ...	1,394	946	2,433	1,623	1,383	1,171	2,193	1,827	7,403	5,567	12,970
		Total of District, ...	2,024	1,474	2,978	2,081	1,733	1,584	2,907	2,408	9,642	7,547	17,189
57	Furruckabad.	Furruckabad T., ...	268	174	256	207	252	223	423	309	1,199	913	2,112
58		Kunouj T., ...	32	14	43	31	27	38	76	61	178	144	322
59		Kaimgunge T., ...	107	98	327	258	125	111	251	214	810	681	1,491
60		In 17 Rural Circles, ...	635	584	898	602	1,042	821	2,468	1,606	5,043	3,613	8,656
		Total of District, ...	1,042	870	1,524	1,098	1,446	1,193	3,218	2,190	7,230	5,351	12,581
61	Mynpoory.	Mynpoory T., ...	129	82	56	61	87	83	101	83	373	309	682
62		Shekoabad T., ...	31	39	79	78	88	81	67	60	265	258	523
63		In 17 Rural Circles, ...	1,241	1,033	1,454	1,014	1,803	1,486	2,989	2,009	7,487	5,542	13,029
		Total of District, ...	1,401	1,154	1,589	1,153	1,978	1,650	3,157	2,152	8,125	6,109	14,234
64	Agra.	Agra T., ...	719	662	834	732	584	636	731	581	2,868	2,611	5,479
65		Ferozabad T., ...	62	58	95	54	34	56	55	44	246	212	458
66		In 34 Rural Circles, ...	1,596	1,303	2,834	2,003	1,690	1,408	3,267	2,364	9,387	7,078	16,465
		Total of District, ...	2,377	2,023	3,763	2,789	2,308	2,100	4,053	2,989	12,501	9,901	22,402

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to age in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	Infants (children unable to walk.)		Boys.	Girls.	Adults.		Old People.		Total.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
67	Etawah.	Etawah T., ...	198	191	109	108	78	107	134	109	519	515	1,034
68		In 20 Rural Circles, ...	928	742	843	602	1,719	1,313	3,033	2,038	6,523	4,695	11,218
		Total of District, ...	1,126	933	952	710	1,797	1,420	3,167	2,147	7,042	5,210	12,252
69	Cawnpore.	Cawnpore T., ...	557	388	626	541	370	368	540	411	2,093	1,708	3,801
70		In 26 Rural Circles, ...	3,269	2,616	3,632	2,824	2,551	2,458	5,128	4,159	14,580	12,057	26,637
		Total of District, ...	3,826	3,004	4,258	3,365	2,921	2,826	5,668	4,570	16,673	13,765	30,438
71	Futtehpore.	Futtehpore T., ...	98	54	80	54	106	111	145	112	429	331	760
72		In 22 Rural Circles, ...	729	543	1,187	923	2,339	2,051	3,075	2,402	7,330	5,919	13,249
		Total of District, ...	827	597	1,267	977	2,445	2,162	3,220	2,514	7,759	6,250	14,009
73	Jounpore.	Jounpore T., ...	169	143	245	200	190	169	246	200	850	712	1,562
74		In 18 Rural Circles, ...	1,366	864	2,857	2,154	3,997	2,736	4,010	2,878	12,230	8,632	20,862
		Total of District, ...	1,535	1,007	3,102	2,354	4,187	2,905	4,256	3,078	13,080	9,344	22,424
75	Humeerpore.	Raath T., ...	43	30	18	10	49	42	85	104	195	186	381
76		In 29 Rural Circles, ...	1,436	1,132	825	672	1,694	1,030	3,207	2,224	7,162	5,058	12,220
		Total of District, ...	1,479	1,162	843	682	1,743	1,072	3,292	2,328	7,357	5,244	12,601
77	Banda.	Banda T., ...	189	147	92	81	127	106	190	159	598	493	1,091
78		In 28 Rural Circles, ...	859	668	1,127	831	3,167	1,883	3,759	3,020	8,912	6,402	15,314
		Total of District, ...	1,048	815	1,219	912	3,294	1,989	3,949	3,179	9,510	6,895	16,405
79	Allahabad.	Allahabad T., ...	157	119	354	274	161	147	180	182	852	722	1,574
80		In 33 Rural Circles, ...	1,977	1,543	2,858	2,272	3,473	2,757	5,596	4,314	13,904	10,886	24,790
		Total of District, ...	2,134	1,662	3,212	2,546	3,634	2,904	5,776	4,496	14,756	11,608	26,364
81	Goruckpore.	Goruckpore T., ...	148	66	427	312	389	252	385	208	1,349	838	2,187
82		In 35 Rural Circles, ...	3,519	2,412	10,197	7,447	10,079	6,910	10,029	7,187	33,824	23,956	57,780
		Total of District, ...	3,667	2,478	10,624	7,759	10,468	7,162	10,414	7,395	35,173	24,794	59,967

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to age in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(concluded.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	Infants (children unable to walk.)		Boys.	Girls.	Adults.		Old People.		Total.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
83	Bustee.	Total of District containing 27 Circles, ...	1,818	1,338	5,512	4,124	4,540	3,437	4,009	2,879	15,879	11,778	27,657
84	Azimgurh.	Azimgurh T., ...	77	57	61	86	85	80	57	66	280	289	569
85		Mhow T., ...	28	16	48	50	43	42	53	43	172	151	323
86		In 27 Rural Circles, ...	1,992	1,379	4,205	2,841	3,973	3,206	4,693	3,941	14,863	11,367	26,230
		Total of District, ...	2,097	1,452	4,314	2,977	4,101	3,328	4,803	4,050	15,315	11,807	27,122
87	Ghazeepore.	Ghazeepore T., ...	134	116	174	126	134	164	178	134	620	540	1,160
88		In 27 Rural Circles, ...	2,256	1,828	5,116	3,503	4,681	3,845	5,014	4,069	17,067	13,245	30,312
		Total of District, ...	2,390	1,944	5,290	3,629	4,815	4,009	5,192	4,203	17,687	13,785	31,472
89	Benares.	Benares T., ...	429	316	685	469	654	567	842	595	2,610	1,947	4,557
90		Ramnuggur T., ...	30	10	29	20	43	22	52	46	154	98	252
91		In 14 Rural Circles, ...	1,617	1,442	2,112	1,729	2,548	1,839	2,792	2,250	9,069	7,260	16,329
		Total of District, ...	2,076	1,768	2,826	2,218	3,245	2,428	3,686	2,891	11,833	9,305	21,138
92	Mirzapore.	Mirzapore T., ...	458	305	352	323	203	230	505	373	1,518	1,231	2,749
93		Chunar T., ...	86	56	94	84	55	53	81	104	316	297	613
94		In 23 Rural Circles, ...	1,921	1,409	3,011	2,633	3,651	2,563	4,274	3,529	12,857	10,134	22,991
		Total of District, ...	2,465	1,770	3,457	3,040	3,909	2,846	4,860	4,006	14,691	11,662	26,353
95	Jaloun.	Calpee T., ...	77	49	47	22	89	80	108	74	321	225	546
96		Koonch T., ...	49	27	7	4	42	27	76	47	174	105	279
97		Jaloun T., ...	36	23	9	5	19	23	54	60	118	111	229
98		In 21 Rural Circles, ...	709	609	374	321	1,259	788	1,784	1,229	4,117	2,947	7,064
		Total of District, ...	862	708	437	352	1,409	918	2,022	1,410	4,730	3,388	8,118
99	Jhansie.	Mow T., ...	43	35	55	38	61	36	89	64	248	173	421
100		In 24 Rural Circles, ...	640	505	441	375	1,064	773	1,355	1,031	3,500	2,684	6,184
		Total of District, ...	683	540	496	413	1,125	809	1,444	1,095	3,748	2,857	6,605
101	Lullitpore.	Total of District containing 20 Circles, ...	736	644	518	431	636	586	524	333	2,414	1,994	4,408
		Grand Total for the Province, ...	76,429	62,951	106,433	80,961	89,610	71,364	121,904	95,272	394,376	310,548	704,924

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces during the year 1873.

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per 1,000 of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.
1	Kumaon.	Total of District containing 8 Circles,...	425,963	5,569	1,356	432,888	11,012	130	2	11,144	23·76	23·34	1·48	25·74
2	Gurhwal.	Total of District containing 12 Circles,	308,398	1,799	85	310,282	6,183	17	1	6,201	20·04	9·45	11·76	19·98
3	Terai	Kasheepore T., ...	7,900	5,308	13	13,221	331	250	...	581	41·89	47·09	...	43·94
4		In 9 Rural Circles, ...	114,757	57,669	...	172,426	2,998	2,068	...	5,066	26·05	35·85	...	29·38
		Total of District, ...	122,657	62,977	13	185,647	3,329	2,318	...	5,647	27·14	36·80	...	30·41
5	Bijnour.	Nugeena T., ...	7,465	12,215	16	19,696	94	215	...	309	11·84	17·60	...	15·68
6		Nujeebabad T., ...	9,475	7,936	7	17,418	285	176	...	461	30·08	22·18	...	26·46
7		Bijnour T., ...	6,389	6,439	37	12,865	133	112	...	245	20·81	17·39	...	19·04
8		Sherkote T., ...	3,958	8,628	...	12,586	77	152	...	229	29·45	17·61	...	18·19
9		Chandpore T., ...	3,251	8,782	...	12,033	131	261	...	392	40·29	29·72	...	32·57
10		In 27 Rural Circles,	463,063	199,455	36	662,554	9,683	3,996	4	13,638	20·81	20·03	111·11	20·58
		Total of District, ...	493,601	243,455	96	737,152	10,358	4,912	4	15,274	20·98	20·17	41·66	20·72
11	Moradabad.	Moradabad T., ...	31,888	30,212	317	62,417	928	806	2	1,736	29·10	26·67	6·30	27·81
12		Sumbhul T., ...	18,417	28,547	10	46,974	547	737	...	1,284	29·70	25·81	...	27·33
13		Amroha T., ...	10,253	24,630	21	34,904	328	764	1	1,093	31·99	31·01	47·61	31·31
14		Chundowsee T., ...	17,832	5,849	5	23,686	659	202	2	863	36·85	34·53	400·0	36·43
15		In 22 Rural Circles,	673,389	280,711	50	954,150	14,036	6,035	2	20,073	20·84	21·49	40·0	21·03
		Total of District, ...	751,779	369,949	403	1,122,131	16,498	8,544	7	25,049	21·91	25·79	17·37	22·32
16	Bareilly.	Bareilly T., ...	59,036	43,463	483	102,982	1,823	1,483	8	3,314	30·87	34·12	16·56	32·18
17		Phillibheet T., ...	17,499	12,327	14	29,840	629	238	...	867	35·94	19·30	...	29·05
18		Aonla T., ...	6,122	5,031	...	11,153	863	82	...	945	140·96	16·29	...	84·72
19		In 27 Rural Circles,	1,114,926	247,861	39	1,362,826	23,421	4,793	1	28,215	21·0	19·33	25·64	20·70
		Total of District, ...	1,197,583	308,682	536	1,506,801	26,736	6,596	9	33,341	22·32	21·37	16·79	22·12
20	Shahjehanpore.	Shahjehanpore T., ...	34,511	37,538	87	72,136	1,112	845	...	1,957	32·23	22·51	...	27·12
21		In 23 Rural Circles,	788,065	89,061	209	877,335	24,575	2,593	5	27,173	31·18	29·11	23·92	30·97
		Total of District, ...	822,576	126,599	296	949,471	25,687	3,438	5	29,130	31·22	27·15	16·89	30·68

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.
22	Budaon	Budaon T., ...	14,291	19,031	...	33,322	212	230	...	442	14·83	12·08	...	13·26
23		Suheswan T., ...	8,245	8,814	4	17,063	365	344	...	709	44·26	39·02	...	41·55
24		In 18 Rural Circles,	771,996	111,842	125	883,963	16,445	2,593	...	19,038	21·32	23·18	...	21·53
		Total of District, ...	794,532	139,687	129	934,348	17,022	3,167	...	20,189	21·42	22·67	...	21·60
25	Dehra Doon.	Total of District containing 6 Circles,	102,814	12,420	477	115,711	1,673	217	21	1,911	16·27	17·47	44·02	16·51
26	Seharunpore.	Seharunpore T., ...	19,528	24,296	20	43,844	825	993	...	1,818	42·24	40·87	...	41·46
27		Deobun T., ...	8,614	10,554	...	19,168	269	273	...	542	31·25	25·86	...	28·27
28		Gungoh T., ...	5,049	5,930	3	10,982	192	194	...	386	38·02	32·71	...	35·14
29		Roorkee T., ...	6,925	3,551	302	10,778	99	71	1	171	14·29	19·99	3·31	15·86
30		In 22 Rural Circles,	564,306	234,684	20	799,010	12,756	5,383	2	18,141	22·60	22·93	100·0	22·70
		Total of District, ...	604,422	279,015	345	883,782	14,141	6,914	3	21,058	23·39	24·78	8·69	23·82
31	Moozuffernuggur.	Kyrannah T., ...	7,817	9,925	...	17,742	150	167	...	317	19·18	16·82	...	17·86
32		Kandlah T., ...	6,085	4,941	...	11,626	122	118	...	240	20·06	23·88	...	21·76
33		Moozuffernuggur T.,	6,560	4,205	28	10,793	148	100	...	248	22·56	23·78	...	22·97
34		In 25 Rural Circles,	478,488	172,026	7	650,521	11,703	4,642	...	16,345	24·45	26·98	...	25·12
		Total of District, ...	498,950	191,097	35	690,082	12,123	5,027	...	17,150	24·29	26·30	...	24·85
35	Meerut.	Meerut T., ...	47,606	33,532	248	81,386	1,028	916	...	1,944	21·59	27·31	...	23·88
36		Haupper T., ...	8,696	5,847	1	14,544	454	341	...	795	52·20	58·32	...	54·66
37		Sirdhanna T., ...	6,474	5,641	354	12,469	103	116	2	221	15·90	20·56	5·65	17·72
38		In 40 Rural Circles,	928,450	236,837	228	1,165,515	23,509	6,443	6	29,949	25·31	27·12	26·31	25·69
		Total of District, ...	991,226	281,857	831	1,273,914	25,085	7,816	8	32,909	25·30	27·73	9·62	25·83
39	Boolundshuhur.	Khoorjah T., ...	15,543	11,315	...	26,858	979	628	...	1,607	62·98	55·50	...	59·83
40		Secunderabad, ...	10,933	7,395	21	18,349	402	280	...	682	36·76	37·86	...	37·16
41		Boolundshuhur, ...	7,897	6,894	13	14,804	400	297	1	698	50·65	43·08	76·92	47·14
42		Shikarpore T., ...	6,346	4,992	...	11,338	191	146	...	337	30·09	29·24	...	29·72
43		In 29 Rural Circles,	719,883	145,304	57	865,244	22,440	4,519	...	26,959	31·17	31·09	...	31·15
		Total of District, ...	760,602	175,900	91	936,593	24,412	5,870	1	30,283	32·09	33·37	10·98	32·34

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per 1,000 of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.
44	ALLYGURH.	Allygurh or Coel T.,	39,012	19,489	38	58,539	1,404	629	2	2,035	35·98	32·27	52·63	34·76
45		Hatrass T., ...	21,121	2,468	...	23,589	1,052	110	...	1,162	49·80	44·57	...	49·26
46		Atrowlee T., ...	9,829	6,112	...	15,941	521	203	...	724	53·09	33·21	...	45·41
47		Secundra Rao T., ...	7,598	5,044	...	12,642	153	166	...	321	20·13	33·30	...	25·39
48		In 28 Rural Circles,	877,561	84,798	38	962,397	19,206	1,398	2	20,606	21·88	16·36	52·63	21·41
		Total of District, ...	955,121	117,911	76	1,073,108	22,336	2,508	4	24,848	23·38	21·27	52·63	23·15
49	ETAH.	Kassgunge T., ..	11,409	4,355	...	15,764	513	208	...	721	44·96	47·76	...	45·73
50		Soron T., ...	9,554	1,627	1	11,182	545	63	...	608	57·04	38·72	...	54·37
51		In 18 Rural Circles,	615,186	61,296	57	676,539	14,246	1,473	3	15,722	23·15	24·03	52·63	23·23
		Total of District, ...	636,149	67,278	58	703,485	15,304	1,744	3	17,051	24·05	25·92	51·72	24·23
52	MUTTRA.	Muttra T., ...	49,937	9,344	...	59,281	1,915	303	...	2,218	38·34	32·42	...	37·41
53		Bindrabun T., ...	19,514	836	...	20,350	897	23	...	920	45·96	27·51	...	45·20
54		Juleysur T., ...	9,451	6,243	...	15,694	382	228	...	610	40·41	36·35	...	38·86
55		Kosee T., ...	8,785	3,985	...	12,770	335	136	...	471	38·15	34·12	...	36·88
56		In 28 Rural Circles,	725,308	53,939	13	779,260	12,092	878	...	12,970	16·67	16·33	...	16·64
		Total of District, ...	812,995	74,347	13	887,355	15,621	1,568	...	17,189	19·21	21·09	...	19·37
57	FURRUCKABAD.	Furruckabad T., ...	56,236	22,522	446	79,204	1,704	407	1	2,112	30·30	18·20	2·24	26·66
58		Kunouj T., ...	10,864	6,229	...	17,093	206	116	...	322	18·96	18·62	...	18·83
59		Kaimgunge T., ...	7,060	3,263	...	10,323	1,305	186	...	1,491	184·84	57·0	...	144·43
60		In 17 Rural Circles,	742,573	69,524	31	812,128	8,011	638	7	8,656	10·78	9·17	225·80	10·66
		Total of District, ...	816,733	101,538	477	918,748	11,226	1,347	8	12,581	13·74	13·26	16·77	13·69
61	MYNPOORY.	Mynpoory T, ...	17,596	3,435	146	21,177	554	128	...	682	31·48	37·26	...	32·20
62		Shekoabad T., ...	5,366	4,703	...	10,069	326	197	...	523	60·75	41·88	...	51·94
63		In 17 Rural Circles,	701,701	32,827	9	734,537	12,437	589	3	13,029	17·72	17·94	333 33	17·73
		Total of District, ...	724,663	40,965	155	765,783	13,317	914	3	14,234	18·37	22·31	19·35	18·58
64	AGRA.	Agra T., ...	103,921	43,558	1,529	149,008	4,029	1,425	25	5,479	38·76	32·71	16·35	36·77
65		Ferozabad T., ...	10,088	4,166	1	14,255	303	155	...	458	30·03	37·20	...	32·12
66		In 34 Rural Circles,	871,474	59,411	36	930,921	15,422	1,041	2	16,465	17·69	17·52	55·55	17·68
		Total of District, ...	985,483	107,135	1,566	1,094,184	19,754	2,621	27	22,402	20·04	22·59	17·24	20·47

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.
67	ETAWAH.	Etawah T., ...	21,241	9,256	52	30,549	715	319	...	1,034	33·66	34·46	...	33·84
68		In 20 Rural Circles.	610,682	27,315	35	638,032	10,726	491	1	11,218	17·56	17·97	28·57	17·58
		Total of District, ...	631,923	36,571	87	668,581	11,441	810	1	12,252	18·10	22·14	11·49	18·32
69	CAWNPORE.	Cawnpore T., ...	90,582	31,894	294	122,770	2,987	812	2	3,801	32·97	25·45	6·80	30·96
70		In 26 Rural Circles,	975,204	57,321	144	1,032,669	25,473	1,162	2	26,637	26·12	20·27	13·88	25·79
		Total of District, ...	1,065,786	89,215	438	1,155,439	28,460	1,974	4	30,438	26·70	22·12	9·13	26·34
71	FUTTEHPORE.	Futtehpore T., ...	11,275	8,604	...	19,879	401	359	...	760	35·56	41·72	...	38·23
72		In 22 Rural Circles,	581,981	61,950	5	643,936	12,220	1,028	1	13,249	20·99	16·59	200·0	20·57
		Total of District, ...	593,256	70,554	5	663,815	12,621	1,387	1	14,009	21·27	19·65	200·0	21·10
73	JOUNPORE.	Jounpore T., ...	12,369	10,949	9	23,327	1,189	372	1	1,562	96·12	33·97	111·11	66·96
74		In 18 Rural Circles,	917,156	85,370	16	1,002,542	19,411	1,449	2	20,862	21·16	16·97	125·0	20·80
		Total of District, ...	929,525	96,319	25	1,025,869	20,600	1,821	3	22,424	22·16	18·90	120·0	21·86
75	HUMEERPORE.	Raath T., ...	10,402	4,113	...	14,515	270	111	...	381	25·95	26·98	...	26·24
76		In 29 Rural Circles,	484,937	29,662	23	514,622	11,608	612	...	12,220	23·93	20·63	...	23·74
		Total of District, ...	495,339	33,775	23	529,137	11,878	723	...	12,601	23·97	21·40	...	23·81
77	BANDA.	Banda T., ...	20,528	7,218	...	27,746	824	266	...	1,091	40·14	36·85	...	39·32
78		In 28 Rural Circles,	636,579	33,280	6	669,865	14,642	672	1	15,314	23·0	20·19	166·66	22·86
		Total of District, ...	657,107	40,498	6	697,611	15,466	938	1	16,405	23·53	23·16	166·66	23·51
79	ALLAHABAD.	Allahabad T., ...	103,473	39,379	841	143,693	1,079	479	16	1,574	10·42	12·16	19·02	10·95
80		In 33 Rural Circles,	1,108,305	142,195	52	1,250,552	22,252	2,496	42	24,790	20·07	17·55	807·69	19·82
		Total of District, ...	1,211,778	181,574	893	1,394,245	23,331	2,975	58	26,364	19·25	16·38	64·94	18·89
81	GORUCKPORE.	Goruckpore T., ...	33,986	16,924	207	51,117	1,640	533	14	2,187	48·25	31·49	67·63	42·78
82		In 35 Rural Circles,	1,785,459	182,448	326	1,968,233	53,194	4,582	4	57,780	29·79	25·11	12·27	29·35
		Total of District, ...	1,819,445	199,372	533	2,019,350	54,834	5,115	18	59,967	30·13	25·65	33·77	29·69

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces during the year 1873.—(concluded.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.	Hindoos.	Mahomedans.	Christians.	Total.
83	BUSTEE.	Total of District containing 27 Circles,	1,247,201	225,784	9	1,472,994	23,756	3,900	1	27,657	19·04	17·27	111·11	18·77
84	AZIMGURH.	Azimgurh T., ...	9,673	6,077	20	15,770	380	189	...	569	39·28	31·10	...	36·08
85		Mhow T., ...	6,532	4,783	...	11,315	198	125	...	323	30·31	26·13	...	28·54
86		In 27 Rural Circles,	1,317,600	186,721	4	1,504,325	23,121	3,108	1	26,230	17·54	16 64	250 0	17·43
		Total of District, ...	1,333,805	197,581	24	1,531,410	23,699	3,422	1	27 122	17·76	17·31	41·66	17·71
87	GHAZEEPORE.	Ghazeepore T., ...	26,305	12,542	6	38,853	836	324	...	1,160	31·78	25·83	...	29·85
88		In 27 Rural Circles,	1,195,505	110,913	130	1,306,548	28,170	2,136	6	30,312	23·56	19·25	46·15	23·20
		Total of District, ...	1,221,810	123,455	136	1,345,401	29,006	2,460	6	31,472	23·78	19 92	44·11	23·39
89	BENARES.	Benares T., ...	133,549	41,374	265	175 188	3,724	822	11	4,557	27·88	19·86	41·50	26·01
90		Ramnuggur T., ...	9,424	2,529	...	11,953	193	59	...	252	20 47	23·32	...	21·08
91		In 14 Rural Circles,	571,537	34,941	80	606,558	15,576	743	10	16,329	27·25	21·26	12·5 0	26·92
		Total of District, ...	714,510	78,844	345	793,699	19,493	1,624	21	21,138	27·28	20·59	60·84	26·63
92	MIRZAPORE.	Mirzapore T., ...	55,917	11,053	304	67,274	2,379	362	8	2,749	42·54	32·75	26·31	40·86
93		Chunar T., ...	7,289	2,462	403	10,154	454	143	16	613	62·28	58·08	39·70	60·37
94		In 23 Rural Circles,	886,448	51,374	43	937,865	21,932	1,056	3	22,991	24·74	20·55	69·76	24·51
		Total of District, ...	949,644	64,899	750	1,015,293	24,765	1,561	27	26,353	26·07	24·05	36·0	25·95
95	JALOUN.	Calpee T., ...	11,414	4,156	...	15,570	396	150	...	546	34·60	36 09	...	35·07
96		Koonch T., ...	11,956	2,492	...	14,448	246	33	...	279	20·57	13·24	...	19·31
97		Jaloun T., ...	8,824	1,373	...	10,197	204	25	...	229	23·11	18·20	...	22·45
98		In 21 Rural Circles,	346,661	17,507	1	364,169	6,751	312	1	7,064	19·47	17·82	1000·0	19·39
		Total of District, ...	378,855	25,528	1	404,384	7,597	520	1	8,118	20·05	20·37	1000·0	20·07
99	JHANSIE.	Mow T., ...	15,065	1,363	...	16,428	396	25	...	421	26·28	18·35	...	25·62
100		In 24 Rural Circles,	290,086	11,054	167	301,307	5,988	195	1	6,184	20·64	17·64	5 97	20·52
		Total of District, ...	305,151	12,417	167	317,735	6,384	220	1	6,605	20·92	17·71	5·97	20·78
101	LULLUTPORE.	Total of the District containing 20 Circles, ...	207,686	4,782	160	212,628	4,313	95	...	4,408	20·76	19·83	...	20·73
		GRAND TOTAL FOR THE PROVINCE, ...	26,569,058	4,189,348	10,640	30,769,056	609,449	95,225	250	704,924	22·93	22·73	23·49	22·91

APPEN

ANNUAL

Deaths registered from Cholera in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
1	Gurhwal. Kumaon.	Total of District containing 8 Circles,	231,146	201,742	432,888	61	215	269	575
2		Total of District containing 12 Circles,	155,745	154,537	310,282	3	2	3	6
3	Terai.	Kasheepore T., ...	6,783	6,438	13,221	...	...	...	...
4		In the 11 Rural Circles, ...	95,790	76,636	172,426	...	22	55	165
		Total of District, ...	102,573	83,074	185,647	...	22	55	165
5	Bijnour.	Nugeena T., ...	9,981	9,715	19,696	...	...	...	...
6		Nujeebabad T., ...	8,964	8,454	17,418	...	2	...	...
7		Bijnour T., ...	7,025	5,840	12,865	...	...	...	...
8		Sherkote T., ...	6,353	6,233	12,586	...	...	...	1
9		Chandpore T., ...	6,170	5,863	12,033	...	...	...	...
10		In the 27 Rural Circles, ...	356,902	305,652	662,554	5	4	9	7
		Total of District, ...	395,395	341,757	737,152	5	6	9	8
11	Moradabad.	Moradabad T., ...	32,804	29,613	62,417	1	1	6	4
12		Sumbhul T., ...	23,391	23,583	46,974	1	...	1	1
13		Amroha T., ...	16,910	17,994	34,904	...	1	1	...
14		Chundowsee T., ...	12,706	10,980	23,686	...	...	...	...
15		In the 22 Rural Circles, ...	510,965	443,185	954,150	1	2	13	6
		Total of District, ...	596,776	525,355	1,122,131	3	4	21	11
16	Bareilly.	Bareilly T., ...	55,148	47,834	102,982	3	...	...	6
17		Phillibheet, ...	15,138	14,702	29,840	...	...	...	...
18		Aonla T., ...	5,840	5,313	11,153	...	1	...	...
19		In the 27 Rural Circles, ...	730,787	632,039	1,362,826	...	5	11	15
		Total of District, ...	806,913	699,888	1,506,801	3	6	11	21
20	Shahjehan-pore.	Shahjehanpore T., ...	36,215	35,921	72,136	...	...	...	...
21		In the 23 Rural Circles, ...	474,921	402,414	877,335	1	...	4	...
		Total of District, ...	511,136	438,335	949,471	1	...	4	...
22	Budaon.	Budaon T., ...	16,848	16,474	33,322	...	...	...	...
23		Suheswan T., ...	8,618	8,445	17,063	...	1	1	1
24		In the 18 Rural Circles, ...	478,153	405,810	883,963	2	8	3	8
		Total of District, ...	503,619	430,729	934,348	2	9	4	9
25	Dehra Doon.	Total of District containing 6 Circles.	68,044	47,667	115,711	*Nil.*			*Nil.*

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1873.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
576	340	62	3	5	1	...	...	1,154	953	2,107	4·99	4·72	4·86	1
7	6	...	...	...	...	...	...	14	13	27	·09	·08	·08	2
5	14	4	31	62	...	...	...	63	53	116	9·28	8·23	8·77	3
37	3	...	4	47	6	...	...	191	148	339	1·99	1·93	1·96	4
42	17	4	35	109	6	...	...	254	201	455	2·47	2·41	2·45	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	...	...	...	2	...	2	·22	...	·11	6
...	...	...	...	1	...	...	1	1	1	2	·14	·17	·15	7
1	...	...	...	...	4	...	...	6	...	6	·94	...	·47	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
5	5	3	2	4	1	4	4	34	19	53	·09	·06	·08	10
6	5	3	2	5	5	4	5	43	20	63	·10	·05	·08	
1	1	1	2	...	1	...	...	8	10	18	·24	·33	·28	11
2	4	...	1	3	...	...	...	6	7	13	·25	·29	·27	12
...	3	1	1	...	...	...	1	3	5	8	·17	·27	·22	13
...	...	...	54	15	...	...	...	31	38	69	2·44	3·46	2·91	14
16	10	5	111	321	105	5	...	333	262	595	·65	·59	·62	15
19	18	7	169	339	106	5	1	381	322	703	·63	·61	·62	
2	1	2	2	...	...	...	...	8	8	16	0·14	0·16	0·15	16
1	3	2	...	...	...	...	...	3	3	6	0·19	0·20	0·20	17
1	...	...	...	...	2	...	...	1	3	4	0·16	0·56	0·35	18
9	16	8	4	9	8	11	1	45	52	97	0·06	0·08	0·07	19
13	20	12	6	9	10	11	1	57	66	123	0·07	0·09	0·08	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
7	...	...	1	2	51	14	...	32	48	80	0·06	0·12	0·09	21
7	...	...	1	2	51	14	...	32	48	80	0·06	0·12	0·08	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	22
...	1	...	1	8	19	1	...	16	17	33	1·85	2·01	1·93	23
3	5	4	61	225	103	1	2	237	188	425	0·49	0·46	0·48	24
3	6	4	62	233	122	2	2	253	205	458	0·50	0·47	0·49	25
Nil.						*Nil.*						*Nil.*		

APPEN

ANNUAL FORM

Deaths Registered from CHOLERA in the Rural Circles and Towns of the

1.	2.	3.	4.						
			Population according to Census of 1872.						
Number.	District.	Name of Rural Circle or Town.	Male.	Female.	Total.	January.	February.	March.	April.
26	Seharunpore.	Seharunpore T., ...	23,272	20,572	43,844	...	...	...	1
27		Deobun T., ...	10,083	9,085	19,168	...	...	...	...
28		Gungoh T., ...	5,728	5,254	10,982	...	...	...	...
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...	...
30		In 22 Rural Circles, ...	438,875	360,135	799,010	1	2	2	7
		Total of District, ...	484,508	399,274	883,782	1	2	2	8
31	Moozuffer-nuggur.	Kyrannah T.,...	9,117	8,625	17,742	...	...	...	...
32		Kandlah T., ...	5,799	5,227	11,026	...	...	...	...
33		Moozuffurnuggur T., ...	6,105	4,688	10,793	...	...	...	...
34		In 25 Rural Circles, ...	354,587	295,934	650,521	...	...	2	...
		Total of District, ...	375,608	314,474	690,082	...	...	2	...
35	Meerut.	Meerut T., ...	44,035	37,351	81,386	...	...	...	...
36		Haupper T., ...	7,601	6,943	14,544	...	...	...	...
37		Sirdhanna T., ...	6,508	5,961	12,469	...	...	...	...
38		In 40 Rural Circles, ...	627,260	538,255	1,165,515	1	...	1	3
		Total of District, ...	685,404	588,510	1,273,914	1	...	1	3
39	Boolundshuhur.	Khoorja T., ...	13,770	13,088	26,858	...	...	...	1
40		Secundrabad T., ...	9,514	8,835	18,349	1	...	1	...
41		Boolundshuhur T., ...	7,730	7,074	14,804	...	...	...	1
42		Shikarpore T., ...	5,798	5,540	11,338	...	...	...	...
43		In 29 Rural Circles, ...	456,870	408,374	865,244	...	...	2	4
		Total of District, ...	493,682	442,911	936,593	1	...	3	6
44	Allygurh.	Allygurh or Coel T., ...	31,762	26,777	58,539	...	...	2	1
45		Hatrass T., ...	12,718	10,871	23,589	...	...	...	...
46		Atrowlee T.,...	8,239	7,702	15,941	4	...	...	4
47		Secundra Rao T., ...	6,668	5,974	12,642	1	...	...	...
48		In 28 Rural Circles, ...	517,876	444,521	962,397	8	1	9	3
		Total of District, ...	577,263	495,845	1,073,108	13	1	11	8
49	Eath.	Kassgunge T., ...	8,393	7,371	15,764	...	...	...	...
50		Soron T., ...	5,881	5,301	11,182	...	...	1	...
51		In 18 Rural Circles, ...	368,472	308,067	676,539	4	4	2	7
		Total of District, ...	382,746	320,739	7,03,485	4	4	3	7

DIX F.

No. VI.

North-Western Provinces during each month of the year 1873.—(continued.)

5.								6.			7.			9.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	...	...	...	...	...	...	1	...	1	·04	...	·02	26
2	...	...	2	5	...	...	...	6	3	9	0·59	0·33	0·46	27
...	...	...	...	...	...	...	...	...	...	...	...	...	...	28
...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
3	6	1	2	4	1	3	3	19	16	35	0·04	0·04	0·04	30
5	6	1	4	9	1	3	3	26	19	45	·05	·04	0·05	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
...	...	...	...	...	...	...	...	...	...	...	...	...	...	33
1	...	...	...	2	...	...	...	1	4	5	...	·01	...	34
1	...	...	...	2	...	...	...	1	4	5	...	·01	...	
...	...	...	...	1	...	...	...	1	...	1	·02	...	·01	35
1	...	...	...	1	...	...	...	1	1	2	·13	·14	·13	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
5	19	...	2	18	...	1	...	34	16	50	·05	·03	·04	38
6	19	...	2	20	...	1	...	36	17	53	·05	·03	·04	
...	...	2	...	...	...	...	...	1	2	3	·07	·15	·11	39
...	...	...	...	...	...	...	...	1	1	2	·10	·11	·10	40
...	...	1	...	...	...	...	...	2	...	2	·25	...	·13	41
1	...	...	...	...	...	...	...	1	...	1	·17	...	·08	42
1	4	...	11	9	2	...	2	18	17	35	·03	·04	·04	43
2	4	3	11	9	2	...	2	23	20	43	·04	·04	·04	
...	2	3	10	8	1	...	...	19	8	27	·59	·29	·46	44
1	23	1	3	3	1	1	1	20	14	34	1·57	1·28	1·44	45
...	1	...	...	1	...	...	...	6	4	10	·72	·51	·62	46
...	1	1	...	...	...	...	...	2	1	3	·29	·16	·23	47
16	32	20	44	101	31	8	3	140	136	276	·27	·30	·28	48
17	59	25	57	113	33	9	4	187	163	350	·32	·32	·32	
1	1	...	...	2	...	...	...	3	1	4	·35	·13	·25	49
2	3	...	18	8	...	...	...	14	18	32	2·38	3·39	2·86	50
7	18	8	22	43	80	14	...	89	120	209	·24	·38	·30	51
10	22	8	40	53	80	14	...	106	139	245	·27	·43	·34	

APPEN
ANNUAL

Deaths Registered from CHOLERA in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
52	Muttra.	Muttra T., ...	30,786	28,495	59,281	4	...	4	2
53		Bindrabun T., ...	10,602	9,748	20,350	...	...	...	1
54		Juleysur T., ...	8,110	7,584	15,694	...	...	...	...
55		Kosee T., ...	6,568	6,202	12,770	...	...	...	...
56		In 28 Rural Circles, ...	424,549	354,711	779,260	...	3	...	6
		Total of District, ...	480,615	406,740	887,355	4	3	4	9
57	Furruckabad.	Furruckabad T., ...	40,156	39,048	79,204	...	...	...	1
58		Kunouj T., ...	8,772	8,321	17,093	...	...	...	...
59		Kaimgunge T., ...	5,287	5,036	10,323	...	...	...	...
60		In 17 Rural Circles, ...	445,507	366,621	812,128	1	1	4	...
		Total of District, ...	499,722	419,026	918,748	1	1	4	1
61	Mynpoory.	Mynpoory T., ...	11,326	9,851	21,177	...	...	...	1
62		Shekoabad T., ...	5,367	4,702	10,069	...	...	...	...
63		In 17 Rural Circles, ...	410,262	324,275	734,537	...	...	...	1
		Total of District, ...	426,955	338,828	765,783	...	...	...	2
64	Agra.	Agra T., ...	79,344	69,664	149,008	...	1	1	4
65		Ferozabad T., ...	7,395	6,860	14,255	...	...	...	...
66		In 34 Rural Circles, ...	502,823	428,098	930,921	...	...	1	2
		Total of District, ...	589,562	504,622	1,094,184	...	1	2	6
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	...	...	...	...
68		In 20 Rural Circles, ...	353,584	284,448	638,032	...	1	...	1
		Total of District, ...	369,928	298,653	668,581	...	1	...	1
69	Cawnpore.	Cawnpore T., ...	67,663	55,107	122,770	...	...	...	...
70		In 26 Rural Circles, ...	551,455	481,214	1,032,669	...	4	...	3
		Total of District, ...	619,118	536,321	1,155,439	...	4	...	3
71	Futtehpore.	Futtehpore T., ...	10,297	9,582	19,879	...	...	...	...
72		In 22 Rural Circles, ...	335,236	308,700	643,936	...	...	...	1
		Total of District, ...	345,533	318,282	663,815	...	...	...	1
73	Jounpore.	Jounpore T.,...	11,404	11,923	23,327	...	...	...	2
74		In 18 Rural Circles, ...	534,296	468,246	1,002,542	...	7	25	68
		Total of District, ...	545,700	480,169	1,025,869	...	7	25	70
75	Humeerpore.	Raath T., ...	7,094	7,421	14,515	...	...	...	...
76		In 29 Rural Circles, ...	269,102	245,520	514,622	...	...	...	...
		Total of District, ...	276,196	252,941	529,137	...	...	...	...

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1873.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	29	1	1	16	4	2	3	41	26	67	1·33	·91	1·13	52
...	...	2	20	8	...	1	...	20	12	32	1·88	1·23	1·57	53
1	...	...	2	...	1	...	...	2	2	4	·24	·26	·25	54
...	...	2	5	18	...	...	...	9	16	25	1·37	2·57	1·95	55
10	60	60	20	26	5	3	...	112	81	193	·26	·22	·24	56
12	89	65	48	68	10	6	3	184	137	321	·38	·33	·36	
4	3	2	3	2	2	...	...	7	10	17	·17	·25	·21	57
...	...	...	...	...	...	...	...	...	...	...	...	...	...	58
...	...	...	...	4	...	...	...	3	1	4	·56	·19	·38	59
1	5	5	7	5	6	1	6	13	29	42	·02	·08	·05	60
5	8	7	10	11	8	1	6	23	40	63	·04	·09	·06	
...	...	1	1	...	...	...	...	2	1	3	·17	·11	·14	61
...	...	2	108	37	...	...	...	78	69	147	14·53	14·67	14·59	62
3	74	98	49	143	5	1	...	205	169	374	·49	·52	·50	63
3	74	101	158	180	5	1	...	285	239	524	·66	·70	·68	
11	16	7	12	76	2	1	...	80	51	131	1·00	·73	0·87	64
...	...	11	21	1	...	...	...	18	15	33	2·43	2·18	2·31	65
1	70	53	48	83	16	2	1	179	98	277	·35	·22	·29	66
12	86	71	81	160	18	3	1	277	164	441	·47	·32	·40	
1	...	...	3	5	1	...	...	6	4	10	·86	·28	·32	67
2	24	1	4	3	...	...	...	22	14	36	·06	·04	·05	68
3	24	1	7	8	1	...	...	28	18	46	·07	·06	·06	
2	...	...	15	46	2	1	1	38	29	67	·56	·52	·54	69
5	2	2	19	19	19	8	1	44	38	82	·07	·07	·08	70
7	2	2	34	65	21	9	2	82	67	149	·13	·12	·12	
...	1	25	150	...	...	...	...	99	77	176	9·61	8·03	8·85	71
18	121	87	131	114	18	...	...	281	209	490	·83	·67	·76	72
18	122	112	281	114	18	...	...	380	286	666	1·09	·89	1·03	
3	1	6	24	15	1	...	...	27	25	52	2·36	2·09	2·23	73
64	173	120	35	56	14	...	1	305	258	563	·57	·55	·56	74
67	174	126	59	71	15	...	1	332	283	615	·60	·58	·59	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	75
2	3	...	12	23	13	1	...	25	29	54	·09	·11	·10	76
2	3	...	12	23	13	1	...	25	29	54	·09	·11	·10	

APPEN

ANNUAL

Deaths Registered from CHOLERA in the Rural Circles and Towns of the

1. Number.	2. District.	3. Name of Rural Circle or Town.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
77	Banda.	Banda T., ...	14,225	13,521	27,746	...	...	...	...
78		In 28 Rural Circles, ...	345,540	324,325	669,865	...	...	...	5
		Total of District, ...	359,765	337,846	697,611	...	...	...	5
79	Allahabad.	Allahabad T., ...	80,644	63,049	143,693	...	3	1	4
80		In 33 Rural Circles, ...	634,466	616,086	1,250,552	1	2	26	39
		Total of District, ...	715,110	679,135	1,394,245	1	5	27	43
81	Gorucke-pore.	Goruckpore T., ...	27,544	23,573	51,117	...	...	...	...
82		In 35 Rural Circles, ...	1,050,528	917,705	1,968,233	...	...	2	3
		Total of District, ...	1,078,072	941,278	2,019,350	...	...	2	3
83	Bus-tee.	Total of District containing 27 Circles,	784,691	688,303	1,472,994	3	...	1	8
84	Azimgurh.	Azimgurh T., ...	8,756	7,014	15,770	...	...	...	...
85		Mhow T., ...	5,794	5,521	11,315	...	...	...	1
86		In 27 Rural Circles, ...	811,595	692,730	1,504,325	...	9	4	10
		Total of District, ...	826,145	705,265	1,531,410	...	9	4	11
87	Ghazeepore.	Ghazeepore T., ...	19,582	19,271	38,853	...	...	22	40
88		In 27 Rural Circles, ...	676,990	629,558	1,306,548	...	4	3	41
		Total of District, ...	696,572	648,829	1,345,401	...	4	25	81
89	Benares.	Benares T., ...	89,763	85,425	175,188	5	13	10	75
90		Ramnuggur T., ...	6,256	5,697	11,953	2	2	...	4
91		In 14 Rural Circles, ...	310,325	296,233	606,558	1	11	11	17
		Total of District, ...	406,344	387,355	793,699	8	26	21	96
92	Mirzapore.	Mirzapore T., ...	34,820	32,454	67,274	...	2	...	1
93		Chunar T., ...	4,989	5,165	10,154	...	...	...	2½
94		In 22 Rural Circles, ...	480,687	457,178	937,865	...	9	52	133
		Total of District, ...	520,496	494,797	1,015,293	...	11	52	136
95	Jaloun.	Calpee T., ...	8,021	7,549	15,570	...	...	...	...
96		Koonch T., ...	7,309	7,139	14,448	...	...	...	...
97		Jaloun T., ...	5,309	4,888	10,197	...	...	...	...
98		In 21 Rural Circles, ...	195,968	168,201	364,169	...	...	...	2
		Total of District, ...	216,607	187,777	404,384	...	...	...	2
99	Jhansie.	Mow T., ...	8,205	8,223	16,428	...	...	...	...
100		In 24 Rural Circles, ...	159,314	141,993	301,307	...	...	...	...
		Total of District, ...	167,519	150,216	317,735	...	...	...	...
101	Lullitpore.	Total of District containing 20 Circles,	111,625	101,003	212,628	*Nil.*			*Nil.*
		Grand Total for the Province, ...	16,406,833	14,362,223	30,769,056	115	343	565	1,305

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1873.—(concluded).

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	1	2	60	37	...	...	...	49	51	100	3·44	3·77	3·60	77
69	249	106	139	102	19	1	...	437	253	690	1 26	·78	1·03	78
69	250	108	199	139	19	1	...	486	304	790	1·35	·91	1·13	
4	3	...	4	7	...	...	...	14	12	26	·17	·19	·18	79
88	386	122	54	95	37	...	...	467	388	850	·73	·62	·67	80
92	389	122	58	102	37	...	...	481	395	876	·67	·58	·62	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	81
2	5	10	81	165	106	49	6	253	176	429	·24	·19	·21	82
2	5	10	81	165	106	49	6	253	176	429	·23	·18	·21	
11	38	30	12	3	...	...	...	71	35	106	·09	·05	·07	83
...	4	27	55	...	...	...	...	38	48	86	4·33	6·84	5·45	84
...	...	...	11	29	...	...	...	21	20	41	3·62	3·62	3·62	85
18	81	94	378	260	40	5	9	525	383	908	·64	·55	·60	86
18	85	121	444	289	40	5	9	584	451	1,035	·70	·63	·67	
27	6	8	9	6	1	1	1	64	57	121	3·26	2 90	3·11	87
121	251	317	187	195	62	2	...	639	544	1,183	·94	·86	·90	88
148	257	325	196	201	63	3	1	703	601	1,304	1·00	·92	·96	
75	50	21	108	36	18	16	5	272	160	432	3·03	1·87	2·46	89
8	7	8	2	2	...	...	...	24	11	35	3·83	1·95	2·92	90
139	310	242	279	185	76	3	1	680	595	1,275	2·12	2·08	2·10	91
222	367	271	389	223	94	19	6	976	766	1,742	2·40	1·97	2·19	
14	6	20	24	16	4	...	...	58	29	87	1·66	·89	1·28	92
1	...	...	4	14	1	...	...	10	12	22	20·0	2·32	2·16	93
106	227	181	110	306	63	3	1	625	566	1,191	1·30	1·26	1·26	94
121	233	201	138	336	68	3	1	693	607	1,300	1·33	1·24	1·28	
...	...	...	...	35	11	...	...	26	20	46	3·24	2·64	2·95	95
...	...	...	...	...	...	...	...	...	...	...	...	...	...	96
...	...	...	...	...	...	...	...	...	...	...	...	...	...	97
...	...	...	...	...	...	...	...	2	...	2	·01	...	...	98
...	...	...	...	35	11	...	...	28	20	48	·12	·10	·11	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	2	...	...	...	...	...	2	2	...	·01	...	99
...	...	...	2	...	...	...	...	...	2	2	...	·01	...	100
			Nil.						*Nil.*					101
1,526	2,728	1,802	2,601	3,101	964	164	54	8,458	6,810	15,268	·51	·47	0·49	

APPEN
ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
1	Kumaon.	Total of District containing 8 Circles, ...	231,146	201,742	432,888	...	4	4	20
2	Gurhwal.	Total of District containing 12 Circles, ...	155,745	154,537	310,282	1	1	5	1
3	Terai.	Kasheepore T., ...	6,783	6,438	13,221	...	...	...	...
4		In 9 Rural Circles, ...	95,790	76,636	172,426	...	...	3	10
		Total of District, ...	102,573	83,074	185,647	...	...	3	10
5	Bijnour.	Nugeena T., ...	9,981	9,715	19,696	...	...	...	...
6		Nujeebabad T., ...	8,964	8,454	17,418	...	1	...	...
7		Bijnour T., ...	7,025	5,840	12,865	...	...	3	...
8		Sherkote T., ...	6,353	6,233	12,586	1	...	...	...
9		Chandpore T., ...	6,170	5,863	12,033	...	1	...	...
10		In 27 Rural Circles, ...	356,902	305,652	662,554	57	26	63	153
		Total of District, ...	395,395	341,757	737,152	58	28	66	153
11	Moradabad.	Moradabad, T., ...	32,804	29,613	62,417	10	12	23	51
12		Sumbhul T., ...	23,391	23,583	46,974	...	1	1	11
13		Amroha T., ...	16,910	17,994	34,904	...	...	1	4
14		Chundowsee T., ...	12,706	10,980	23,686	...	2	2	10
15		In 22 Rural Circles, ...	510,965	443,185	954,150	59	86	140	293
		Total of District, ...	596,776	525,355	1,122,131	69	101	167	369
16	Bareilly.	Bareilly T., ...	55,148	47,834	102,982	6	4	27	31
17		Phillibheet T., ...	15,138	14,702	29,840	4	7	10	25
18		Aonla T., ...	5,840	5,313	11,153	30	17	24	34
19		In 27 Rural Circles, ...	730,787	632,039	1,362,826	237	275	443	1,097
		Total of District, ...	806,913	699,888	1,506,801	277	303	504	1,187
20	Shahje-hanpore.	Shâhjehanpore T., ...	36,215	35,921	72,136	...	...	...	4
21		In 23 Rural Circles, ...	474,921	402,414	877,335	193	239	528	830
		Total of District, ...	511,136	438,335	949,471	193	239	528	834
22	Budaon.	Budaon T., ...	16,848	16,474	33,322	1	10	14	14
23		Suheswan T., ...	8,618	8,445	17,063	4	15	15	35
24		In 18 Rural Circles, ...	478,153	405,810	883,963	176	238	417	723
		Total of District, ...	503,619	430,729	934,348	181	263	446	772
25	Dehra Doon.	Total of District containing 6 Circles, ...	68,044	47,667	115,711	...	...	...	...

DIX G.

FORM No. VII.

of the North-Western Provinces during each month of the year 1873.

5.								6			7			8
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
27	11	10	2	...	1	...	...	33	46	79	·14	·22	·18	1
...	1	4	1	...	13	1	...	10	18	28	·06	·11	·09	2
15	32	4	...	...	...	1	...	25	27	52	3·68	4·19	3·93	3
12	27	7	2	1	2	9	12	39	46	85	·40	·60	·49	4
27	59	11	2	1	2	10	12	64	73	137	·62	·87	·73	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
10	3	...	...	...	...	...	...	10	4	14	1·11	·47	·80	6
6	2	1	2	...	...	...	...	9	5	14	1·28	·85	1·08	7
1	...	4	2	...	4	2	...	8	6	14	1·25	·96	1·11	8
...	1	...	...	1	...	...	...	2	1	3	·32	·17	·24	9
381	314	205	100	45	24	33	46	742	705	1,447	2·07	2·30	2·18	10
398	320	210	104	46	28	35	46	771	721	1,492	1·95	2·10	2·02	
57	48	11	6	2	...	1	1	117	105	222	3·56	3·54	3·55	11
38	55	37	14	3	3	8	44	103	112	215	4·40	4·76	4·57	12
9	11	12	10	3	2	1	4	33	24	57	1·95	1·33	1·63	13
8	2	6	4	...	1	...	...	18	17	35	1·41	1·54	1·47	14
603	678	349	217	95	62	107	267	1,600	1,356	2,956	3·13	3·06	3·09	15
715	794	415	251	103	68	117	316	1,871	1,614	3,485	3·13	3·07	3·10	
87	59	44	24	6	2	6	17	142	171	313	2·57	3·57	3·03	16
14	20	6	4	...	...	1	...	53	38	91	3·50	2·58	3·04	17
46	72	31	12	6	18	1	4	151	144	295	25·85	27·14	26·45	18
1,879	1,293	867	496	158	102	53	73	3,761	3,212	1,673	5·14	5·08	5·11	19
2,026	1,444	948	536	170	122	61	94	4,107	3,565	7,672	5·08	5·09	5·08	
25	21	20	4	6	1	1	1	36	47	83	·99	1·30	1·15	20
1,174	845	623	266	130	53	94	163	2,573	2,565	5,138	5·41	6·37	5·85	21
1,199	866	643	270	136	54	95	164	2,609	2,612	5,221	5·10	5·95	5·49	
23	12	7	...	...	...	...	...	37	44	81	2·19	2·67	2·43	22
59	28	9	...	...	...	1	...	85	81	166	9·86	9·59	9·72	23
1,656	1,047	663	305	121	41	46	81	3,000	2,514	5,514	6·27	6·19	6·23	24
1,738	1,087	679	305	121	41	47	81	3,122	2,639	5,761	6·19	6·12	6·16	
2	4	...	2	1	1	...	...	5	5	10	·07	·10	·08	25

APPEN

ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
26	SEHARUNPORE.	Seharunpore T., ...	23,272	20,572	* 43,844	...	2	3	12
27		Deobun T., ...	10,083	9,085	19,168	2	1	...	3
28		Gungoh T., ...	5,728	5,254	10,982	10	6	11	4
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...	...
30		In 22 Rural Circles, ...	438,875	360,135	799,010	136	113	270	445
		Total of District, ...	484,508	399,274	883,782	148	120	284	464
31	MOOZUFFURNUGGUR.	Kyrannah T., ...	9,117	8,625	17,742	...	1	2	...
32		Kandlah T., ...	5,799	5,227	11,026	...	...	...	1
33		Moozuffurnuggur T., ...	6,105	4,688	10,793	...	...	...	...
34		In 25 Rural Circles, ...	354,587	295,934	650,521	93	138	251	453
		Total of District, ...	375,608	314,474	690,082	93	139	253	454
35	MEERUT.	Meerut T., ...	44,035	37,351	81,386	...	...	3	5
36		Haupper T., ...	7,601	6,943	14,544	2	2	9	9
37		Sirdhanna T., ...	6,508	5,961	12,469	...	...	...	...
38		In 40 Rural Circles, ...	627,260	538,255	1,165,515	42	81	211	341
		Total of District, ...	685,404	588,510	1,273,914	44	83	223	355
39	BOOLUNDSHUHUR.	Khoorja T., ...	13,770	13,088	26,858	10	40	107	119
40		Secundrabad T., ...	9,514	8,835	18,349	...	...	3	7
41		Boolundshuhur, T., ...	7,730	7,074	14,804	10	11	12	15
42		Shikarpore T., ...	5,798	5,540	11,338	38	34	28	4
43		In 29 Rural Circles, ...	456,870	408,374	865,244	201	269	720	1,183
		Total of District, ...	493,682	442,911	936,593	259	354	870	1,328
44	ALLYGURH.	Allygurh or Coel T., ...	31,762	26,777	58,539	2	20	19	57
45		Hatrass T., ...	12,718	10,871	23,589	...	...	11	10
46		Atrowlee T., ...	8,239	7,702	15,941	...	27	52	2
47		Secundra Rao T., ...	6,668	5,974	12,642	...	...	2	9
48		In 28 Rural Circles, ...	517,876	444,521	962,397	27	74	163	395
		Total of District, ...	577,263	495,845	1,073,108	29	121	247	473
49	ETAH.	Kassgunge T., ...	8,393	7,371	15,764	...	11	56	106
50		Soron T., ...	5,881	5,301	11,182	23	24	29	18
51		In 18 Rural Circles, ...	368,472	308,067	676,539	109	192	499	705
		Total of District, ...	382,746	320,739	703,485	132	227	584	829

DIX G.

FORM No. VII.—*(continued.)*

of the North-Western Provinces during each month of the year 1873.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
41	17	4	3	4	...	...	1	41	46	87	1·76	2·23	1·98	26
13	4	2	...	4	1	...	...	18	12	30	1·78	1·32	1·56	27
17	19	9	14	17	13	12	...	57	75	132	9·95	14·27	12·02	28
...	...	2	...	...	...	...	1	1	2	3	·16	·47	·27	29
850	815	349	201	127	93	54	108	1,927	1,632	3,559	4·39	4·53	4·45	30
921	855	366	218	152	107	66	110	2,044	1,767	3,811	4·21	4·42	4·31	
2	1	1	...	...	2	...	...	5	4	9	·54	·46	·50	31
8	4	4	...	...	...	...	1	8	10	18	1·38	1·91	1·63	32
4	3	2	1	...	...	3	...	6	7	13	·98	1·49	1·20	33
875	627	306	141	72	45	31	57	1,752	1,337	3,089	4·94	4·51	4·74	34
889	635	313	142	72	47	34	58	1,771	1,358	3,129	4·71	4·31	4·53	
13	12	12	1	3	2	1	4	26	30	56	·59	·80	·68	35
22	10	6	1	...	4	...	...	26	39	65	3·42	5·61	4·46	36
...	3	1	...	...	...	...	...	4	...	4	·61	...	·32	37
652	521	273	144	50	13	5	50	1,349	1,034	2,383	2·15	1·92	2·04	38
687	546	292	146	53	19	6	54	1,405	1,103	2,508	2·04	1·87	1·96	
56	16	...	...	1	...	...	...	168	181	349	12·20	13·82	12·99	39
1	9	8	1	...	...	...	...	12	17	29	1·25	1·92	1·58	40
5	5	3	...	...	...	...	1	31	31	62	4·01	4·38	4·18	41
4	...	...	...	...	...	...	...	60	48	108	10·34	8·66	9·52	42
1,846	1,201	637	207	42	23	30	60	3,357	3,062	6,419	7·34	7·49	7·41	43
1,912	1,231	648	208	43	23	30	61	3,628	3,339	6,967	7·34	7·53	7·43	
112	62	21	2	...	...	...	...	154	141	295	4·84	5·26	5·04	44
31	30	23	1	5	...	...	1	64	48	112	5·03	4·41	4·74	45
49	62	29	5	...	...	...	...	124	102	226	15·04	13·24	14·17	46
16	28	26	5	...	...	...	...	42	44	86	6·29	7·36	6·80	47
903	1,120	766	304	93	31	11	72	2,130	1,829	3,959	4·11	4·11	4·11	48
1,111	1,302	865	317	98	31	11	73	2,514	2,164	4,678	4·35	4·36	4·36	
52	16	7	...	...	...	1	...	122	127	249	14·59	17·22	15·79	49
8	5	2	...	...	...	...	...	52	57	109	8·84	10·75	9·74	50
1,076	746	652	345	112	51	84	116	2,532	2,155	4,687	6·87	6·99	6·92	51
1,136	767	661	345	112	51	85	116	2,706	2,339	5,045	7·07	7·29	7·17	

APPEN

ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
52	MUTTRA.	Muttra T., ...	30,786	28,495	59,281	50	23	30	16
53		Bindrabun T., ...	10,602	9,748	20,350	1	4	6	5
54		Juleysur T., ...	8,110	7,584	15,694	...	2	8	16
55		Kosee T., ...	6,568	6,202	12,770	1	2	1	3
56		In 28 Rural Circles, ...	424,549	354,711	779,260	26	71	94	161
		Total of District, ...	480,615	406,740	887,355	78	102	139	201
57	FURRUCKABAD.	Furruckabad T., ...	40,156	39,048	79,204	...	1	4	3
58		Kunouj T., ...	8,772	8,321	17,093	...	...	...	...
59		Kaimgunge T., ...	5,287	5,036	10,323	8	8	24	68
60		In 17 Rural Circles, ...	445,507	366,621	812,128	14	28	40	72
		Total of District, ...	499,722	419,026	918,748	22	37	68	143
61	MYNPOORY.	Mynpoory T., ...	11,326	9,851	21,177	...	...	...	1
62		Shekoabad T., ...	5,367	4,702	10,069	...	...	...	6
63		In 17 Rural Circles, ...	410,262	324,275	734,537	...	7	26	28
		Total of District, ...	426,955	338,828	765,783	...	7	26	35
64	AGRA.	Agra T., ...	79,344	69,664	149,008	2	17	71	121
65		Ferozabad T., ...	7,395	6,860	14,255	1	...	4	26
66		In 34 Rural Circles, ...	502,823	428,098	930,921	91	99	405	477
		Total of District, ...	589,562	404,622	1,094,184	94	116	480	624
67	ETAWAH.	Etawah T., ...	16,344	14,205	30,549	...	1	1	7
68		In 20 Rural Circles, ...	353,584	284,448	638,032	...	1	1	10
		Total of District, ...	369,928	298,653	668,581	...	2	2	17
69	CAWNPORE.	Cawnpore T., ...	67,663	55,107	122,770	155	208	216	153
70		In 26 Rural Circles, ...	551,455	481,214	1,032,669	115	36	212	417
		Total of District, ...	619,118	536,321	1,155,439	270	244	428	570
71	FUTTEHPORE.	Futtehpore T., ...	10,297	9,582	19,879	2	...	...	...
72		In 22 Rural Circles, ...	335,236	308,700	643,936	4	2	14	43
		Total of District, ...	345,533	318,282	663,815	6	2	14	43
73	JOUNPORE.	Jounpore T., ...	11,404	11,923	23,327	...	...	2	4
74		In 18 Rural Circles, ...	534,296	468,246	1,002,542	15	36	126	199
		Total of District, ...	545,700	480,169	1,025,869	15	36	128	203
75	HUMEERPORE.	Raath T., ...	7,094	7,421	14,515	...	...	...	...
76		In 29 Rural Circles, ...	269,102	245,520	514,622	5	1	10	3
		Total of District, ...	276,196	252,941	529,137	5	1	10	3

DIX G.

FORM No. VII.

of the North-Western Provinces during each month of the year 1873.—*(continued.)*

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male.	Female.	Total.	Male.	Female.	Total.	
25	7	...	...	...	1	...	1	79	74	153	2·56	2·59	2·58	52
6	4	3	...	...	...	...	1	18	12	30	1·69	1·23	1·47	53
24	15	15	2	1	...	...	...	40	44	84	4·93	5·80	5·35	54
8	9	1	1	...	...	...	...	17	9	26	2·58	1·45	2·03	55
396	285	241	76	24	89	21	62	904	642	1,546	2·12	1·80	1·98	56
459	320	261	79	25	90	21	64	1,058	781	1,839	2·20	1·92	2·07	
35	53	47	9	...	...	...	14	83	83	166	2·06	2·12	2·09	57
...	1	8	5	...	...	...	...	4	10	14	·45	1·20	·81	58
103	104	48	29	11	4	4	4	223	192	415	42·17	38·12	40·20	59
148	160	169	48	42	11	28	138	508	390	898	1·14	1·06	1·10	60
286	318	272	91	53	15	32	156	818	675	1,493	1·63	1·61	1·62	
1	1	2	1	...	...	...	...	4	2	6	·35	·20	·28	61
22	26	11	...	1	...	...	...	28	38	66	5·21	8·08	6·55	62
75	134	187	84	26	9	38	128	414	328	742	1·00	1·01	1·01	63
98	161	200	85	27	9	38	128	446	368	814	1·04	1·08	1·06	
162	79	14	7	1	...	1	1	253	223	476	3·18	3·20	3·19	64
22	8	2	3	...	...	...	...	41	25	66	5·54	3·64	4·63	65
540	525	276	85	47	14	30	48	1,497	1,140	2,637	2·97	2·66	2·83	66
724	612	292	95	48	14	31	49	1,791	1,388	3,179	3·03	2·75	2·90	
23	20	16	2	1	...	4	20	52	43	95	3·18	3·02	3·10	67
18	29	59	33	15	30	39	145	208	172	380	·58	·60	·59	68
41	49	75	35	16	30	43	165	260	215	475	·70	·72	·71	
86	10	....	...	...	1	3	2	442	392	834	6·53	7·11	6·79	69
993	804	802	394	174	59	184	455	2,482	2,163	4,645	4·50	4·49	4·49	70
1,079	814	802	394	174	60	187	457	2,924	2,555	5,479	4·72	4·76	4·74	
...	...	...	...	...	...	...	...	1	1	2	·09	·10	·10	71
125	155	83	42	23	12	10	34	299	248	547	·89	·80	·84	72
125	155	83	42	23	12	10	34	300	249	549	·86	·78	·82	
1	5	2	2	1	3	...	2	11	11	22	·96	·92	·94	73
226	159	53	33	21	2	23	69	523	439	962	·97	·93	·95	74
227	164	55	35	22	5	23	71	534	450	984	·97	·93	·95	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	75
9	8	9	13	7	3	8	24	50	50	100	·18	·20	·19	76
9	8	9	13	7	3	8	24	50	50	100	·18	·19	·18	

APPEN
ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
77	Banda.	Banda T., ...	14,225	13,521	27,746	...	...	2	...
78		In 28 Rural Circles, ...	345,540	324,325	669,865	4	3	3	5
		Total of District, ...	359,765	337,846	697,611	4	3	5	5
79	Allahabad.	Allahabad T., ...	80,644	63,049	143,693	...	3	32	178
80		In 33 Rural Circles, ...	634,466	616,086	1,250,552	15	9	27	107
		Total of District, ...	715,110	679,135	1,394,245	15	12	59	285
81	Goruck-pore.	Goruckpore T., ...	27,544	23,573	51,117	46	71	120	145
82		In 35 Rural Circles, ...	1,050,528	917,705	1,968,233	230	615	1,767	3,015
		Total of District, ...	1,078,072	941,278	2,019,350	276	686	1,887	3,160
83	Bus-tee.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994	341	462	1,260	1,916
84	Azimgurh.	Azimgurh T., ...	8,756	7,014	15,770	...	1	...	1
85		Mhow T., ...	5,794	5,521	11,315	...	...	...	...
86		In 27 Rural Circles, ...	811,595	692,730	1,504,325	26	44	221	414
		Total of District, ...	826,145	705,265	1,531,410	26	45	221	415
87	Ghazee-pore.	Ghazeepore T., ...	19,582	19,271	38,853	...	...	2	10
88		In 27 Rural Circles, ...	676,990	629,558	1 306,548	33	88	236	436
		Total of District, ...	696,572	648,829	1,345,401	33	88	238	446
89	Benares.	Benares T., ...	89,763	85,425	175,188	12	31	69	53
90		Ramnuggur T., ...	6,256	5,697	11,953	...	...	...	
91		In 14 Rural Circles, ...	310,325	296,233	606,558	3	12	23	55
		Total of District, ...	406,344	387,355	793,699	15	43	92	108
92	Mirza-pore.	Mirzapore T., ...	34,820	32,454	67,274	3	6	18	32
93		Chunar T., ...	4,989	5,165	10,154	...	1	...	2
94		In 23 Rural Circles, ...	480,687	457,178	937,865	11	14	47	74
		Total of District, ...	520,496	494,797	1,015,293	14	21	59	108
95	Jaloun.	Calpee T., ...	8,021	7,549	15,570	...	...	...	1
96		Koonch T., ...	7,309	7,139	14,448	...	...	...	...
97		Jaloun T., ...	5,309	4,888	10,197	...	...	...	...
98		In 21 Rural Circles, ...	195,968	168,201	364,169	1	2	2	1
		Total of District, ...	216,607	187,777	404,384	1	2	2	2
99	Jhan-sie.	Mow T., ...	8,205	8,223	16,428	...	...	...	...
100		In 24 Rural Circles, ...	159,314	141,993	301,307	...	2	3	5
		Total of District, ...	167,519	150,216	31,735	...	2	3	5
101	Lullit-pore.	Total of District containing 20 Circles, ...	111,625	101,003	212,628	7	2	...	...
		Grand Total for the Province, ...	16,406,833	14,362,223	30,769,056	2,706	3,896	9,305	15,538

DIX G.

FORM No. VII.

of the North-Western Provinces during each month of the year 1873.—*(concluded.)*

5.								6.			7.			8.
								Total.			*Ratio of deaths per* 1,000 *of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	3	1	2	...	3	...	...	2	10	12	·14	·73	·43	77
42	29	19	12	4	11	58	128	179	139	318	·51	·42	·47	78
43	32	20	14	4	14	58	128	181	149	330	·50	·44	·47	
248	43	7	2	1	...	2	5	287	234	521	3·55	3·71	3·62	79
286	269	146	55	29	22	41	238	634	610	1,244	·99	·99	·99	80
534	312	153	57	30	22	43	243	921	844	1,765	1·28	1·24	1·26	
96	44	8	...	...	...	...	...	306	224	530	11·10	9·50	10·36	81
3,245	2,381	1,450	678	313	111	182	411	7,935	6,463	14,398	7·55	7·04	7·31	82
3,341	2,425	1,453	678	313	111	182	411	8,241	6,687	14,928	7·64	7·10	7·39	
2,401	1,345	592	239	96	37	70	186	4,869	4,076	8,945	6·20	5·92	6·07	83
1	...	...	...	...	...	...	...	1	2	3	·11	·28	·19	84
2	3	1	1	1	...	...	...	3	5	8	·51	·90	·70	85
440	250	220	113	72	33	146	327	1,265	1,041	2,306	1·55	1·50	1·53	86
443	253	221	114	73	33	146	327	1,269	1,048	2,317	1·53	1·48	1·51	
6	3	3	2	1	...	...	...	13	14	27	·66	·72	·69	87
419	467	227	105	43	33	17	62	1,149	1,017	2,166	1·69	1·61	1·65	88
425	470	230	107	44	33	17	62	1,162	1,031	2,193	1·66	1·58	1·63	
71	40	8	1	2	2	...	...	169	120	289	1·88	1·40	1·64	89
3	...	...	...	...	12	...	...	10	5	15	1·59	·87	1·25	90
60	60	24	25	8	4	5	15	139	155	294	·44	·52	·48	91
134	100	32	26	10	18	5	15	318	280	598	·78	·72	·75	
41	27	4	...	2	2	3	1	76	63	139	2·18	1·94	2·06	92
2	8	8	7	4	1	...	...	21	12	33	4·20	2·32	3·25	93
148	155	69	51	29	23	35	60	363	347	710	·75	·75	·75	64
191	190	81	58	35	26	38	61	460	422	882	·88	·85	·86	
...	...	...	...	...	...	...	...	...	1	1	...	·13	·06	95
...	...	...	...	...	...	...	...	...	...	...	...	...	...	96
...	...	1	...	...	...	...	...	1	...	1	·18	...	·09	97
4	12	7	5	2	9	24	36	58	47	105	·29	·28	·28	98
4	12	8	5	2	9	24	36	59	48	107	·27	·25	·26	
...	1	...	...	...	...	...	...	1	...	1	·12	...	·06	99
15	9	6	5	1	...	8	8	34	28	62	·21	·19	·20	100
15	10	6	5	1	...	8	8	35	28	63	·20	·18	·19	
1	4	6	7	2	...	1	...	10	20	30	·08	·19	·14	101
23,368	17,676	10,921	5,028	2,113	1,149	1,583	3,810	52,366	44,727	97,093	3·19	3·11	3·15	

APPEN

ANNUAL FORM

Deaths registered from FEVERS in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Populatoin according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
1	KUMAON.	Total of District containing 8 Circles,	231,146	201,742	432,888	344	308	239	344
2	GURHWAL.	Total of District containing 12 Circles,	155,745	154,537	310,282	150	145	143	164
3	TERAI.	Kasheepore T., ...	6,783	6,438	13,221	40	23	24	4
4		In 11 Rural Circles, ...	95,790	76,636	172,426	525	384	363	410
		Total of District, ...	102,573	83,074	185,647	565	407	387	414
5	BIJNOUR.	Nugeena T., ...	9,981	9,715	19,696	13	12	21	11
6		Nujeebabad T., ...	8,964	8,454	17,418	29	14	20	15
7		Bijnour T., ...	7,025	5,840	12,865	7	4	4	7
8		Sherkote T., ...	6,353	6,233	12,586	15	8	14	12
9		Chandpore T., ...	6,170	5,863	12,033	12	19	7	13
10		In 27 Rural Circles, ...	356,902	305,652	662,554	797	579	531	586
		Total of District, ...	395,395	341,757	737,152	873	636	597	644
11	MORADABAD.	Moradabad T., ...	32,804	29,613	62,417	42	30	55	54
12		Sumbhul T., ...	23,391	23,583	46,974	12	5	14	26
13		Amroha T., ...	16,910	17,994	34,904	28	25	22	24
14		Chundowsee T., ...	12,706	10,980	23,686	5	7	4	15
15		In 22 Rural Circles, ...	510,965	443,185	954,150	1,020	572	513	585
		Total of District, ...	596,776	525,355	1,122,131	1,107	639	608	704
16	BAREILLY.	Bareilly T., ...	55,148	47,834	102,982	133	89	101	114
17		Phillibheet T., ...	15,138	14,702	29,840	22	4	8	9
18		Aonla T., ...	5,840	5,313	11,153	49	16	24	69
19		In 27 Rural Circles, ...	730,787	632,039	1,362,826	2,053	1,327	982	1,349
		Total of District, ...	806,913	699,888	1,506,801	2,257	1,436	1,115	1,541
20	SHAHJEHANPORE.	Shahjehanpore T., ...	36,215	35,921	72,136	24	18	29	36
21		In 23 Rural Circles, ...	474,921	402,414	877,335	1,187	713	739	994
		Total of District, ...	511,136	438,335	949,471	1,211	731	768	1,030
22	BUDAON.	Budaon T., ...	16,848	16,474	33,322	12	5	1	6
23		Suheswan T., ...	8,618	8,445	17,063	10	7	17	17
24		In 18 Rural Circles, ...	478,153	405,810	883,963	752	448	416	491
		Total of District, ...	503,619	430,729	934,348	774	460	434	514
25	DEHRA DOON.	Total of District containing 6 Circles,	68,044	47,667	115,711	85	55	82	91

DIX H.

No. VIII.

North-Western Provinces during each month of the year 1873.

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male.	Female.	Total.	Male.	Female.	Total.	
544	586	457	409	403	336	246	276	2,499	1,993	4,492	10·81	9·87	10·37	1
262	255	346	351	367	269	215	198	1,699	1,166	2,865	10·90	7·54	9·23	2
20	25	29	32	46	43	46	28	219	141	360	32·28	21·90	27·22	3
384	212	149	193	281	472	543	427	2,430	1,918	4,348	25·36	25·02	25·21	4
494	237	178	230	327	515	589	455	2,649	2,059	4,708	25·82	24·78	25·36	
25	17	14	24	26	13	22	22	113	107	220	11·32	11·01	11·17	5
18	16	17	23	14	39	32	24	150	111	261	16·73	13·13	14·98	6
6	13	13	6	14	9	10	13	62	44	106	8·82	7·53	8·23	7
15	11	16	8	9	11	14	8	90	51	141	14·16	8·18	11·20	8
13	15	15	23	28	24	22	19	104	106	210	16·85	18·07	17·45	9
786	685	449	562	923	1,150	945	878	4,998	3,873	8,871	14·00	12·67	13·38	10
863	757	524	646	1,014	1,246	1,045	964	5,517	4,292	9,809	13·95	12·55	13·30	
48	76	60	65	39	84	79	57	369	320	689	11·24	10·80	11·03	11
41	56	22	53	89	91	77	58	282	262	544	12·05	11·10	11·58	12
30	29	21	28	40	50	36	14	174	173	347	10·28	9·61	9·94	13
16	16	16	40	58	31	24	12	124	120	244	9·75	10·92	10·30	14
720	781	505	697	1,545	1,559	1,140	1,054	5,798	4,893	10,691	11·34	11·04	11·20	15
855	958	624	883	1,771	1,815	1,356	1,195	6,747	5,768	12,515	11·30	10·97	11·15	
154	136	106	164	183	173	203	134	813	877	1,690	14·74	18·33	16·41	16
16	25	26	38	40	71	191	110	312	248	560	20·61	16·88	18·76	17
34	41	22	22	34	107	56	53	295	232	527	50·51	43·66	47·25	18
1,599	1,112	807	1,029	1,650	2,414	2,406	1,470	10,209	7,989	18,198	13·96	12·64	13·35	19
1,803	1,314	961	1,253	1,907	2,765	2,856	1,767	11,629	9,346	20,975	14·41	13·35	13·92	
181	92	55	55	147	120	75	56	416	472	888	11·48	13·14	12·31	20
1,329	806	695	899	1,408	2,141	1,638	1,271	7,695	6,125	13,820	16·20	15·22	15·75	21
1,510	898	750	954	1,555	2,261	1,713	1,327	8,111	6,597	14,708	15·86	15·05	15·49	
11	5	4	10	42	21	14	17	60	88	148	3·56	5·34	4·44	22
32	24	20	30	47	53	22	11	153	137	290	17·75	16·22	16·99	23
831	580	481	703	1,423	1,346	1,044	875	5,157	4,233	9,390	10·78	10·43	10·62	24
874	609	505	743	1,512	1,420	1,080	903	5,370	4,458	9,828	10·66	10·34	10·51	
131	106	57	98	103	135	96	138	730	447	1,177	10·72	9·37	10·17	25

APPEN

ANNUAL FORM

Deaths registered from FEVERS in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	Feb-ruary.	March.	April.
			Male.	Female.	Total.				
26	SEHARUNPORE.	Seharunpore T., ...	23,272	20,572	43,844	65	52	58	80
27		Deobun T., ...	10,083	9,085	19,168	20	10	10	25
28		Gúngoh T., ...	5,728	5,254	10,982	10	10	9	5
29		Roorkee T., ...	6,550	4,228	10,778	8	7	7	12
30		In 22 Rural Circles, ...	438,875	360,135	799,010	813	723	850	865
		Total of District, ...	484,508	399,274	883,782	916	802	934	987
31	MOOZUFFER-NUGGUR.	Kyrannah T., ...	9,117	8,625	17,742	15	13	12	13
32		Kandlah T., ...	5,799	5,227	11,026	10	6	11	20
33		Moozuffernuggur T., ...	6,105	4,688	10,793	6	2	8	10
34		In 25 Rural Circles, ...	354,587	295,934	650,521	871	624	677	823
		Total of District, ...	375,608	314,474	690,082	902	645	708	866
35	MEERUT.	Meerut T., ...	44,035	37,351	81,386	60	24	69	42
36		Haupper T., ...	7,601	6,943	14,544	11	9	19	14
37		Sirdhanna T., ...	6,508	5,961	12,469	29	19	16	10
38		In 40 Rural Circles, ...	627,260	538,255	1,165,515	1,350	1,080	1,087	1,220
		Total of District, ...	685,404	588,510	1,273,914	1,450	1,132	1,191	1,286
39	BOOLUNDSHUHUR.	Khoorja T., ...	13,770	13,088	26,858	22	19	12	18
40		Secundrabad T., ...	9,514	8,835	18,349	20	20	12	19
41		Boolundshuhur T., ...	7,730	7,074	14,804	14	10	10	9
42		Shikarpore T., ...	5,798	5,540	11,338	3	3	3	2
43		In 29 Rural Circles, ...	456,870	408,374	865,244	1,041	771	755	788
		Total of District, ...	493,682	442,911	936,593	1,100	823	792	836
44	ALLYGURH.	Allygurh or Coel T., ...	31,762	26,777	58,539	54	16	21	26
45		Hatrass T., ...	12,718	10,871	23,589	27	...	24	28
46		Atrowlee T., ...	8,239	7,702	15,941	2	20	34	8
47		Secundra Rao T., ...	6,566	5,974	12,642	8	...	5	7
48		In 28 Rural Circles, ...	517,876	444,521	962,397	776	593	568	495
		Total of District, ...	577,263	495,845	1,073,108	867	629	652	564
49	ETAH.	Kassgunge T., ...	8,393	7,371	15,764	29	18	17	20
50		Soron T., ...	5,881	5,301	11,182	38	22	7	20
51		In 18 Rural Circles, ...	368,472	308,067	676,539	634	463	497	634
		Total of District, ...	382,746	320,739	703,485	701	503	521	674

DIX H.

No. VIII.

North Western Provinces during each month of the year 1873.—*(continued.)*

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male.	Female.	Total.	Male.	Female.	Total.	
52	69	73	101	131	148	91	59	511	468	979	21·95	22·26	22·32	26
25	30	21	35	55	39	27	28	171	154	325	16·95	16·95	16·95	27
15	13	10	9	11	10	10	14	55	71	126	9·60	13·51	11·47	28
17	16	9	13	11	22	13	14	83	66	149	12·67	15·61	13·82	29
962	904	564	703	1,035	1,199	1,063	914	6,017	4,578	10,595	13·71	12·71	13·26	30
1,071	1,032	677	861	1,243	1,418	1,204	1,029	6,837	5,337	12,174	14·10	13·36	13·77	
37	32	14	17	34	33	40	32	175	117	292	19·02	13·56	16·45	31
20	28	10	10	15	31	32	27	127	93	220	21·90	17·79	19·95	32
19	20	13	12	24	22	11	7	79	75	154	12·94	16·00	14·26	33
1,004	978	609	787	1,299	1,401	1,070	1,123	6,150	5,116	11,266	17·34	17·28	17·31	34
1,080	1,058	646	826	1,372	1,487	1,153	1,189	6,631	5,401	11,932	17·38	17·17	17·29	
68	128	70	139	234	292	182	170	751	727	1,478	17·05	19·46	18·16	35
25	24	15	39	90	76	56	37	205	210	415	26·97	30·24	28·53	36
24	17	8	16	21	23	9	16	141	67	208	21·66	11·24	16·68	37
1,587	1,584	960	1,608	4,118	4,491	2,940	1,947	13,002	10,970	23,972	20·72	20·38	20·56	38
1,704	1,753	1,053	1,802	4,463	4,882	3,187	2,170	14,099	11,974	26,073	20·57	20·34	20·46	
27	43	24	44	78	105	84	50	253	273	526	18·33	20·85	19·58	39
13	26	21	37	59	71	44	34	208	168	376	21·86	19·01	20·49	40
12	22	17	51	97	105	64	58	235	234	469	30·40	33·07	31·68	41
24	19	12	11	17	14	38	6	72	80	152	12·41	14·44	13·40	42
961	1,078	778	1,121	3,194	3,295	2,852	1,475	9,012	8,597	17,609	19·72	21·05	20·35	43
1,037	1,188	852	1,264	3,445	3,590	2,582	1,623	9,780	9,352	19,132	19·81	21·11	20·42	
37	59	74	83	82	111	78	43	304	380	684	9·57	14·19	11·68	44
27	33	30	40	74	62	44	26	210	205	415	16·51	18·85	17·59	45
27	30	31	46	65	75	40	34	204	208	412	24·76	27·00	25·84	46
11	12	8	16	22	19	27	11	76	70	146	11·39	11·71	11·54	47
780	973	763	993	1,928	1,931	1,599	1,007	6,853	5,553	12,406	13·23	12·49	12·89	48
882	1,107	906	1,178	2,171	2,198	1,788	1,121	7,647	6,416	14,063	13·24	12·93	13·10	
33	21	19	36	58	39	34	31	173	182	355	20·61	24·69	22·52	49
22	27	44	38	66	56	30	29	204	195	399	34·68	36·78	35·68	50
670	624	537	818	1,202	1,181	1,264	930	5,064	4,390	9,454	13·74	14·25	13·97	51
725	672	600	892	1,326	1,276	1,328	990	5,441	4,767	10,208	14·21	14·86	14·51	

APPEN
ANNUAL FORM

Deaths registered from FEVERS in the Rural Circles and Towns of the

1.	2.	3.	2.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
52	Muttra.	Muttra T., ...	30,786	28,495	59,281	42	22	32	36
53		Bindrabun T., ...	10,602	9,748	20,350	15	9	15	21
54		Juleysur T., ...	8,110	7,584	15,694	21	8	11	8
55		Kosee T., ...	6,568	6,202	12,770	9	8	2	10
56		In 28 Rural Circles, ...	424,549	354,711	779,260	407	311	355	430
		Total of District, ...	480,615	406,740	887,355	494	358	415	505
57	Furruckabad.	Furruckabad T., ...	40,156	39,048	79,204	60	36	45	82
58		Kunouj T., ...	8,772	8,321	17,093	10	21	21	14
59		Kaimgunge T., ...	5,287	5,036	10,323	70	48	76	81
60		In 17 Rural Circles, ...	445,507	366,621	8,12,128	529	424	446	512
		Total of District, ...	499,722	419,026	9,18,748	669	529	588	689
61	Mynpoory.	Mynpoory T., ...	11,326	9,851	21,177	45	24	40	45
62		Shekoabad T., ...	5,367	4,702	10,069	16	18	10	15
63		In 17 Rural Circles, ...	410,262	324,275	734,537	766	669	748	693
		Total of District, ...	426,955	338,828	765,783	827	711	798	753
64	Agra.	Agra T., ...	79,344	69,664	149,008	125	103	167	228
65		Ferozabad T., ...	7,395	6,860	14,255	17	15	18	23
66		In 34 Rural Circles, ...	502,823	428,098	930,921	754	485	506	596
		Total of District, ...	589,562	504,622	1,094,184	896	603	691	847
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	36	33	29	32
68		In 20 Rural Circles, ...	353,584	284,448	638,032	696	545	717	639
		Total of District, ...	369,928	298,653	668,581	732	578	746	671
69	Cawnpore.	Cawnpore T., ...	67,663	55,107	122,770	175	137	169	179
70		In 26 Rural Circles, ...	551,455	481,214	1,032,669	1,518	1,246	1,361	1,325
		Total of District, ...	619,118	536,321	1,155,439	1,693	1,383	1,530	1,504
71	Futtehpore.	Futtehpore T., ...	10,297	9,582	19,879	26	18	29	24
72		In 22 Rural Circles, ...	335,236	308,700	643,936	644	599	543	494
		Total of District, ...	345,533	318,282	663,815	670	617	572	518
73	Jounpore.	Jounpore T., ...	11,404	11,923	23,327	49	99	237	29
74		In 18 Rural Circles, ...	534,296	468,246	1,002,542	1,135	1,307	1,213	1,355
		Total of District, ...	545,700	480,169	1,025,869	1,184	1,406	1,450	1,384
75	Humeer-pore.	Raath, ...	7,094	7,421	14,515	6	4	3	9
76		In 29 Rural Circles, ...	269,102	245,520	514,622	499	428	399	314
		Total of District, ...	276,196	252,941	529,137	505	432	402	323

DIX H.

No. VIII.

North-Western Provinces during each month of the year 1873.—(continued.)

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male..	Female.	Total.	Male.	Female.	Total.	
85	85	53	75	150	119	125	58	464	418	882	15·07	14·66	14·87	52
32	52	26	38	54	80	67	23	222	210	432	20·93	21·54	21·22	53
14	19	30	11	22	36	14	16	108	102	210	13·31	13·44	13·38	54
19	24	15	21	30	27	16	9	109	81	190	16·59	13·06	14·87	55
734	633	648	752	1,386	1,357	1,032	825	4,949	3,921	8,870	11·65	11·05	11·38	56
884	813	772	897	1,642	1,619	1,254	931	5,852	4,732	10,584	12·17	11·63	11·92	
125	88	96	116	185	163	149	107	677	575	1,252	16·85	14·72	15·80	57
28	18	16	25	31	32	35	32	159	124	283	18·12	14·90	16·55	58
88	88	52	71	120	133	102	103	558	474	1,032	105·54	94·12	99·97	59
620	390	374	343	569	770	625	750	3,786	2,566	6,352	8·49	6·99	7·82	60
861	584	538	555	905	1,098	911	992	5,180	3,739	8,919	10·36	8·92	9·70	
44	42	44	66	111	87	55	43	349	297	646	30·81	30·14	30·50	61
26	13	16	33	69	30	27	31	154	150	304	28·69	31·90	30·19	62
964	795	711	897	1,265	1,202	1,225	1,103	6,366	4,672	11,038	15·51	14·40	15·02	63
1,034	850	771	996	1,445	1,319	1,307	1,177	6,869	5,119	11,988	16·08	15·10	15·65	
259	255	210	293	399	344	206	217	1,324	1,482	2,806	16·68	21·27	18·83	64
24	24	19	43	56	53	25	26	131	162	343	24·47	28·61	24·06	65
875	807	705	1,018	1,652	1,571	1,064	1,001	6,281	4,753	11,034	12·49	11·12	11·85	66
1,158	1,086	934	1,354	2,107	1,968	1,295	1,244	7,786	6,397	14,183	13·20	12·67	12·96	
32	33	26	48	77	72	52	38	235	273	508	14·37	19·21	16·62	67
971	516	392	619	1,210	1,182	1,027	939	5,495	3,958	9,453	15·54	13·91	14·81	68
1,003	549	418	667	1,287	1,254	1,079	977	5,730	4,231	9,961	15·48	14·16	14·89	
213	126	113	161	199	212	183	186	1,099	954	2,053	16·09	17·31	16·72	69
1,619	1,064	928	1,374	2,342	1,959	2,073	1,801	10,179	8,431	18,610	18·45	17·52	18·02	70
1,832	1,190	1,041	1,535	2,541	2,171	2,256	1,987	11,278	9,385	20,663	18·21	17·49	17·88	
30	32	38	46	53	34	44	29	219	184	403	21·26	19·17	20·27	71
782	609	394	426	747	800	870	805	4,227	3,486	7,713	12·60	11·29	11·97	72
812	641	432	472	800	834	914	834	4,446	3,670	8,116	12·86	11·53	12·22	
79	61	64	137	134	142	102	58	646	545	1,191	56 64	45·70	51·05	73
1,575	1,264	1,093	1,635	1,757	1,863	1,702	1,648	10,327	7,220	17,547	19·32	15·40	17·50	74
1,654	1,325	1,157	1,772	1,891	2,005	1,804	1,706	10,973	7,765	18,738	20·10	16·17	18·26	
11	5	3	14	14	30	22	16	67	70	137	9·44	9·42	9·43	75
511	462	265	463	827	1,005	912	663	3,968	2,780	6,748	14·74	11·32	13·11	76
522	467	268	477	841	1,035	934	679	4,035	2,850	6,885	14·60	11·26	13·01	

APPEN
ANNUAL FORM

Deaths registered from FEVERS in the Rural Circles and Towns of the

1. Number.	2. District.	3. Name of Rural Circle or Town.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
77	Banda,	Banda T., ...	14,225	13,521	27,746	34	35	36	41
78		In 28 Rural Circles, ...	345,540	324,325	669,865	780	754	640	504
		Total of District, ...	359,765	337,846	697,611	814	789	676	545
79	Allahabad.	Allahabad T., ...	80,644	63,049	143,693	47	50	50	70
80		In 33 Rural Circles, ...	634,466	616,086	1,250,552	1,326	1,056	1,120	1,219
		Total of District, ...	715,110	679,135	1,394,245	1,373	1,106	1,170	1,289
81	Gorucke-pore.	Goruckpore T., ...	27,544	23,573	51,117	126	191	88	61
82		In 35 Rural Circles, ...	1,050,528	917,705	1,968,233	2,844	2,862	3,532	2,740
		Total of District, ...	1,078,072	941,278	2,019,350	2,970	3,053	3,620	2,801
83	Bus-tee.	Total of District containing 27 Circles,	784,691	688,303	1,472,994	1,940	1,326	1,424	1,292
84	Azimgurh.	Azimgurh T., ...	8,756	7,014	5,770	15	10	23	37
85		Mhow T., ...	5,794	5,521	11,315	9	3	4	5
86		In 27 Rural Circles, ...	811,595	692,730	1,504,325	1,347	888	997	1,253
		Total of District, ...	826,145	705,265	1,531,410	1,371	901	1,024	1,295
87	Ghazee-pore.	Ghazeepore T., ...	19,582	19,271	38,853	28	24	41	54
88		In 27 Rural Circles, ...	676,990	629,558	1,306,548	1,206	1,464	1,418	1,257
		Total of District, ...	696,572	648,829	1,345,401	1,234	1,488	1,459	1,311
89	Benares.	Benares T., ...	89,763	85,425	175,188	184	148	169	259
90		Ramnuggur T., ...	6,256	5,697	11,953	12	9	18	8
91		In 14 Rural Circles, ...	310,325	296,233	606,558	602	478	774	901
		Total of District, ...	406,344	387,355	793,699	798	635	961	1,168
92	Mirzapore.	Mirzapore T., ...	34,820	32,454	67,274	75	68	79	97
93		Chunar T., ...	4,989	5,165	10,154	17	18	22	33
94		In 22 Rural Circles, ...	480,687	457,178	937,865	1,159	1,027	1,234	1,310
		Total of District, ...	520,496	494,797	1,015,293	1,251	1,113	1,335	1,440
95	Jaloun.	Calpee T., ...	8,021	7,549	15,570	20	17	16	19
96		Koonch T., ...	7,309	7,139	14,448	21	29	22	15
97		Jaloun T., ...	5,309	4,888	10,197	6	5	3	9
98		In 21 Rural Circles, ...	195,968	168,201	364,169	358	337	324	259
		Total of District, ...	216,607	187,777	404,384	405	388	365	302
99	Jhansie.	Mow T., ...	8,205	8,223	16,428	18	12	4	7
100		In 24 Rural Circles, ...	159,314	141,993	301,307	349	274	261	247
		Total of District, ...	167,519	150,216	317,735	367	286	265	254
101	Lullut-pore.	Total of District containing 20 Circles,	111,625	101,003	212,628	154	122	166	118
		Grand Total of the Province,	16,406,833	14,362,223	30,769,056	33,649	27,175	28,828	29,668

APPENDIX H.

No. VIII.

North-Western Provinces during each month of the year 1873.—(concluded.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
27	28	17	55	129	69	61	50	324	258	582	22·77	19·08	20·97	77
680	761	417	713	1,268	1,564	1,297	1,014	6,084	4,308	10,392	17·60	13·28	15·51	78
707	789	434	768	1,397	1,633	1,358	1,064	6,408	4,566	10,974	17·81	13·51	15·73	
67	72	57	109	103	70	61	32	413	375	788	5·12	5·94	5·48	79
1,365	1,435	963	1,336	1,979	1,985	1,633	1,348	9,430	7,335	16,765	14·86	11·90	13·40	80
1,432	1,507	1,020	1,445	2,082	2,055	1,694	1,380	9,843	7,710	17,553	13·76	11·35	12·58	
90	111	134	166	167	143	141	164	993	589	1,582	36·05	24·98	30·94	81
2,223	1,632	2,177	2,831	3,545	3,716	3,875	3,469	21,211	14,235	35,446	20·19	15·51	18·00	82
2,313	1,743	2,311	2,997	3,712	3,859	4,016	3,633	22,204	14,824	37,028	20·59	15·74	18·33	
1,066	788	846	1,250	1,526	1,660	1,764	1,600	9,701	6,781	16,482	12·36	9·85	11·18	83
26	16	60	64	48	55	18	35	194	213	407	22·15	30·36	25·80	84
14	16	7	26	38	21	24	18	106	79	185	18·29	14·30	16·35	85
1,450	1,101	1,285	1,760	2,472	2,388	1,868	1,820	10,674	7,955	18,629	13·15	11·48	12·38	86
1,490	1,133	1,352	1,850	2,558	2,464	1,910	1,873	10,974	8,247	19,221	13·28	11·69	12·55	
49	63	53	82	124	104	70	58	403	347	750	20·58	18·00	19·30	87
1,744	1,490	1,794	2,968	3,311	2,891	2,988	2,006	13,974	10,563	24,537	20·64	16·77	18·78	88
1,793	1,553	1,847	3,050	3,435	2,995	3,058	2,064	14,377	10,910	25,287	20·63	16·81	18·79	
255	266	233	338	373	316	258	205	1,694	1,310	3,004	19·31	15·33	17·14	89
9	8	9	12	11	4	15	10	73	52	125	11·66	9·12	10·45	90
1,075	964	825	1,119	1,918	1,626	1,137	772	6,752	5,439	12,191	21·75	18·36	20·09	91
1,339	1,238	1,067	1,469	2,302	1,946	1,410	987	8,519	6,801	15,320	20·96	17·55	19·30	
124	158	106	165	216	204	141	107	815	725	1,540	23·40	22·33	22·89	92
30	33	25	45	51	37	36	17	184	180	364	36·88	34·84	35·84	93
1,298	1,279	956	1,383	2,040	2,227	1,587	1,355	9,337	7,518	16,855	19·42	16·44	17·97	94
1,452	1,470	1,087	1,593	2,307	2,468	1,764	1,479	10,336	8,423	18,759	19·85	17·02	18·47	
25	14	13	29	93	58	44	16	213	151	364	26·55	20·00	23·37	95
18	11	2	1	7	36	12	3	104	73	177	14·22	10·22	12·25	96
20	16	27	24	24	37	19	19	107	102	209	20·15	20·86	20·49	97
362	339	307	479	664	809	622	509	3,165	2,204	5,369	16·15	13·10	14·74	98
425	380	349	533	788	940	697	547	3,589	2,530	6,119	16·56	13·47	15·13	
11	5	14	20	40	51	36	26	147	97	244	17·91	11·79	14·85	99
294	380	239	392	485	625	557	440	2,567	1,976	4,543	16·11	13·91	15·07	100
305	385	253	412	525	676	593	466	2,714	2,073	4,787	16·21	13·80	15·06	
164	162	144	195	213	276	251	161	1,142	984	2,126	10·23	9·74	9·99	101
35,991	31,183	26,177	36,677	57,283	59,888	50,707	41,126	257,242	201,110	458,352	15·67	14·00	14·89	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
1	Kumaon.	Total of District containing 8 Circles, ...	231,146	201,742	432,888	130	95	100	158
2	Gurhwal.	Total of District containing 12 Circles, ...	155,745	154,537	310,282	81	133	140	169
3	Terai.	Kasheepore T., ...	6,783	6,438	13,221	2	...	...	22
4		In 11 Rural Circles, ...	95,790	76,636	172,426	11	13	13	15
		Total of District, ...	102,573	83,074	185,647	13	13	13	37
5	Bijnour.	Nugeena T., ...	9,981	9,715	19,696	1	...	1	2
6		Nujeebabad T., ...	8,964	8,454	17,418	8	5	3	5
7		Bijnour T., ...	7,025	5,840	12,865	2	9	3	5
8		Sherkote T., ...	6,353	6,233	12,586	4	2	2	3
9		Chandpore T., ...	6,170	5,863	12,033	2	2	1	4
10		In 27 Rural Circles, ...	356,902	305,652	662,554	140	82	74	122
		Total of District, ...	395,395	341,757	737,152	157	100	84	141
11	Moradabad.	Moradabad T., ...	32,804	29,613	62,417	29	14	15	21
12		Sumbhul T., ...	23,391	23,583	46,974	12	12	6	9
13		Amroha T., ...	16,910	17,994	34,904	34	26	24	16
14		Chundowsee T., ...	12,706	10,980	23,686	34	11	11	10
15		In 22 Rural Circles, ...	510,965	443,185	954,150	246	176	116	180
		Total of District, ...	596,776	525,355	1,122,131	355	239	172	236
16	Bareilly.	Bareilly T., ...	55,148	47,834	102,982	39	15	19	27
17		Phillibheet T., ...	15,138	14,702	29,840	7	3	5	4
18		Aonla T., ...	5,840	5,313	11,153	1	...	1	17
19		In 27 Rural Circles, ...	730,787	632,039	1,362,826	101	103	80	103
		Total of District, ...	806,913	699,888	1,506,801	148	121	105	151
20	Shahjehanpore.	Shahjehanpore T., ...	36,215	35,921	72,136	8	8	8	10
21		In 23 Rural Circles, ...	474,921	402,414	877,335	284	203	192	295
		Total of District, ...	511,136	438,335	949,471	292	211	200	305
22	Budaon.	Budaon T., ...	16,848	16,474	33,322	1	...	...	...
23		Suheswan T., ...	8,618	8,445	17,063	3	1	3	...
24		In 18 Rural Circles, ...	478,153	405,810	883,963	89	71	55	75
		Total of District, ...	503,616	430,729	934,348	93	72	58	75
25	Debra Doon.	Total of District containing 6 Circles, ...	68,044	47,667	115,711	30	21	26	63

DIX I.

FORM No. IX.

of the North-Western Provinces during each month of the year 1873.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
344	373	289	190	164	144	101	97	1,186	999	2,185	5·13	4·95	5·04	1
227	305	296	295	257	97	125	82	1,177	1,030	2,207	7·55	6·66	7·11	2
...	4	...	4	5	2	...	...	25	14	39	3·68	2·17	2·94	3
21	11	11	18	23	23	18	19	114	82	196	1·19	1·07	1·13	4
21	15	11	22	29	25	18	19	139	96	235	1·35	1·15	1·26	
4	1	5	7	4	4	5	4	22	16	38	2·20	1·64	1·92	5
4	10	4	5	9	14	8	4	56	23	79	6·24	2·72	4·53	6
8	1	3	9	23	4	12	20	51	48	99	7·26	8·23	7·69	7
2	...	5	5	4	1	7	3	24	14	38	3·77	2·24	3·01	8
1	1	1	2	9	6	3	3	24	11	35	3·89	1·87	2·90	9
138	135	120	156	222	268	193	164	1,006	808	1,814	2·81	2·64	2·76	10
157	148	138	184	271	297	228	198	1,183	920	2,103	2·99	2·57	2·85	
35	43	29	34	18	37	35	26	188	148	336	5·73	4·99	5·38	11
18	17	21	27	44	28	34	16	135	109	244	5·77	4·62	5·19	12
29	25	29	49	61	52	39	46	215	215	430	12·71	11·95	12·31	13
18	18	22	108	68	28	26	19	209	164	373	16·44	14·93	15·74	14
229	297	210	344	735	672	420	316	2,258	1,683	3,941	4·41	3·79	4·13	15
329	400	311	562	926	817	554	423	3,005	2,319	5,324	5·03	4·41	4·74	
38	43	74	180	161	107	113	77	465	428	893	8·43	8·94	8·67	16
5	6	6	13	18	28	13	10	62	56	118	4·09	3·80	3·95	17
8	8	5	4	5	11	5	5	46	24	70	7·87	4·51	6·27	18
138	92	69	123	122	199	179	236	956	589	1,545	1·30	·93	1·13	19
189	149	154	320	306	345	310	328	1,529	1,097	2,626	1·89	1·56	1·74	
57	21	21	61	87	83	44	29	241	196	437	6·65	5·45	6·05	20
290	191	194	337	565	669	501	343	2,293	1,771	4,064	4·82	4·40	4·63	21
347	212	215	398	652	752	545	372	2,534	1,967	4,501	4·95	4·48	4·74	
...	...	...	...	...	...	1	...	2	...	2	·11	...	·06	22
...	2	1	4	6	8	17	21	37	29	66	4·29	3·45	3·86	23
127	97	103	157	344	330	226	188	1,056	806	1,862	2·20	1·98	2·10	24
127	99	104	161	350	338	244	209	1,095	835	1,930	2·17	1·93	2·06	
57	39	32	43	48	46	41	49	319	176	495	4·68	3·69	4·27	25

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
26	Seharunpore.	Seharunpore T., ...	23,272	20,572	43,844	12	9	11	14
27		Deobun T., ...	10,083	9,085	19,168	...	3	5	1
28		Gungoh T., ...	5,728	5,254	10,982	5	5	8	7
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...	...
30		In 22 Rural Circles, ...	438,875	369,135	799,010	126	113	97	127
		Total of District, ...	484,508	399,274	883,782	143	130	121	149
31	Moozuffer-nuggur.	Kyrannah T., ...	9,117	8,625	17,742	...	...	...	...
32		Kandlah T., ...	5,799	5,227	11,026	...	...	...	...
33		Moozuffernuggur T., ...	6,105	4,688	10,793	1	...	...	...
34		In 25 Rural Circles, ...	354,587	295,934	650,521	87	67	65	72
		Total of District, ...	375,608	314,474	690,082	88	67	65	72
35	Meerut.	Meerut T., ...	44,035	37,351	81,386	20	17	7	14
36		Haupper T., ...	7,601	6,943	14,544	6	3	7	9
37		Sirdhanna T., ...	6,508	5,961	12,469	...	...	...	...
38		In 40 Rural Circles, ...	627,260	538,255	1,165,515	103	106	98	97
		Total of District, ...	685,404	588,510	1,273,914	129	126	112	120
39	Boolundshuhur.	Khoorja T., ...	13,770	13,088	26,858	8	7	9	11
40		Secundrabad T., ...	9,514	8,835	18,349	14	7	17	15
41		Boolundshuhur T., ...	7,730	7,074	14,804	4	1	7	4
42		Shikarpore T., ...	5,798	5,540	11,338	...	...	...	...
43		In 29 Rural Circles, ...	456,870	408,374	865,244	114	82	91	59
		Total of District, ...	493,682	442,911	936,593	140	97	124	89
44	Allygurh.	Allygurh or Coel, T.,...	31,762	26,777	58,539	73	35	24	27
45		Hatrass T., ...	12,718	10,871	23,589	18	...	10	5
46		Atrowlee T., ...	8,239	7,702	15,941	1	...	...	...
47		Secundra Rao T., ...	6,668	5,974	12,642	2	...	5	2
48		In 28 Rural Circles, ...	517,876	444,521	962,397	124	67	64	61
		Total of District, ...	577,263	495,845	1,073,108	218	102	103	95
49	Etah.	Kasgunge T., ...	8,393	7,371	15,764	6	1	...	1
50		Soron T., ...	5,881	5,301	11,182	...	2	3	1
51		In 18 Rural Circles, ...	368,472	308,067	676,539	23	11	27	19
		Total of District, ...	382,746	320,739	703,485	29	14	30	21

DIX I.

FORM No. IX.

of the North-Western Provinces during each month of the year 1873.—(Continued.)

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male.	Female.	Total.	Male.	Female.	Total.	
6	10	2	25	36	29	23	16	116	77	193	4·98	3·74	4·40	26
3	6	6	9	28	23	20	10	63	51	114	6·24	5·61	5·94	27
9	4	6	5	8	8	6	4	35	40	75	6·11	7·61	6·82	28
...	...	...	1	1	...	...	1	2	1	3	·30	·23	·27	29
121	151	87	140	231	213	216	130	1,062	690	1,752	2·41	1·91	2·19	30
139	171	101	180	304	273	265	161	1,278	859	2,137	2·63	2·15	2·41	
...	...	...	...	...	...	...	1	1	...	1	·10	...	·05	31
1	...	...	...	...	...	...	...	...	1	1	...	·19	·09	32
4	5	1	...	6	5	4	1	16	11	27	2·61	2·34	2·50	33
98	109	81	168	194	167	77	82	720	547	1,267	2·03	1·84	1·94	34
103	114	82	168	200	172	81	84	737	559	1,296	1·96	1·77	1·87	
21	22	23	40	66	70	47	27	205	169	374	4·65	4·52	4·59	35
10	20	14	27	40	63	28	18	129	116	245	16·97	16·70	16·84	36
...	...	1	...	...	...	...	...	...	1	1	...	·16	·08	37
145	187	129	133	228	222	173	187	1,096	712	1,808	1·74	1·32	1·55	38
176	229	167	200	334	355	248	232	1,430	998	2,428	2·08	1·68	1·90	
16	21	24	66	103	81	46	24	202	214	416	14·66	16·35	15·47	39
...	33	31	43	45	36	4	23	141	127	268	14·82	14·37	14·60	40
1	4	3	5	17	18	34	10	72	36	108	9·31	5·08	7·29	41
24	1	...	8	...	1	35	2	35	36	71	6·03	6·44	6·26	42
85	90	102	134	188	199	198	121	821	642	1,463	1·79	1·57	1·69	43
126	149	160	256	353	335	317	180	1,271	1,055	2,326	2·57	2·32	2·48	
14	23	20	92	121	132	74	52	354	333	687	11·14	12·43	11·73	44
9	24	16	65	98	106	76	58	232	253	485	18·24	23·27	20·56	45
1	5	1	6	2	4	3	2	14	11	25	1·69	1·42	1·56	46
2	1	...	1	5	4	...	2	12	12	24	1·79	2·00	1·90	47
84	122	121	220	658	716	479	215	1,622	1,309	2,931	3·13	2·94	3·04	48
110	175	158	384	884	962	632	329	2,234	1,918	4,152	3·87	3·86	3·87	
5	2	2	6	5	3	4	1	22	14	36	2·62	1·89	2·28	49
4	6	2	7	10	7	4	4	32	18	50	5·44	3·39	4·47	50
22	23	10	27	58	88	41	15	220	144	364	·59	·46	·53	51
31	31	14	40	73	98	49	20	274	176	450	·71	·54	·63	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
52	Muttra.	Muttra T., ...	30,786	28,495	59,281	5	20	30	35
53		Bindrabun T., ...	10,602	9,748	20,350	9	14	11	11
54		Juleysur T., ...	8,110	7,584	15,694	13	3	5	8
55		Kosee T., ...	6,568	6,202	12,770	3	3	4	7
56		In 28 Rural Circles, ...	424,549	354,711	779,260	45	17	23	38
		Total of District, ...	480,615	406,740	887,355	75	57	73	99
57	Furruckabad.	Furruckabad T., ...	40,156	39,048	79,204	20	6	14	9
58		Kunouj T., ...	8,772	8,321	17,093	...	...	...	1
59		Kaimgunge T., ...	5,287	5,036	10,323	1	...	...	...
60		In 17 Rural Circles, ...	445,507	366,621	812,128	35	31	36	35
		Total of District, ...	499,722	419,026	918,748	56	37	50	45
61	Mynpoory.	Mynpoory T., ...	11,325	9,851	21,177	...	...	...	1
62		Shekoabad T., ...	5,367	4,702	10,069	...	...	...	...
63		In 17 Rural Circles, ...	410,262	324,275	734,537	27	25	18	13
		Total of District, ...	426,955	338,828	765,783	27	25	18	14
64	Agra.	Agra T., ...	79,344	69,664	149,008	36	34	56	58
65		Ferozabad T., ...	7,395	6,860	14,255	...	...	...	1
66		In 34 Rural Circles, ...	502,823	428,098	930,921	89	33	65	80
		Total of District, ...	589,562	504,622	1,094,184	125	67	121	139
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	5	3	7	...
68		In 20 Rural Circles, ...	353,584	284,448	638,032	68	52	59	50
		Total of District, ...	369,928	298,653	668,581	73	55	66	50
69	Cawnpore.	Cawnpore T., ...	67,663	55,107	122,770	27	19	19	26
70		In 26 Rural Circles, ...	551,455	481,214	1,032,669	99	77	58	72
		Total of District, ...	619,118	536,321	1,155,439	126	96	77	98
71	Futtehpore.	Futtehpore T., ...	10,297	9,582	19,879	2	2	2	5
72		In 22 Rural Circles, ...	335,236	308,700	643,936	184	143	166	167
		Total of District, ...	345,533	318,282	663,815	186	145	168	172
73	Joun-pore.	Jounpore T., ...	11,404	11,923	23,327	...	...	5	...
74		In 18 Rural Circles, ...	534,296	468,246	1,002,542	20	32	21	51
		Total of District, ...	545,700	480,169	1,025,869	20	32	26	51
75	Humeer-pore.	Raath T., ...	7,094	7,421	14,515	...	1	...	...
76		In 29 Rural Circles, ...	269,102	245,520	514,622	237	195	200	137
		Total of District, ...	276,196	252,941	529,137	237	196	200	137

DIX I.

FORM No. IX.

of the North-Western Provinces during each month of the year 1873.—(continued.)

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.*			*Ratio of deaths per 1,000 of Population.*			Number.
								Male.	Female.	Total.	Male.	Female.	Total.	
30	29	36	85	99	80	55	38	272	270	542	8·83	9·47	9'14	52
5	15	28	52	66	44	47	21	180	143	323	16·97	14·66	15'87	53
5	2	7	20	28	16	23	12	83	59	142	10·23	7·77	9'04	54
7	8	7	26	41	19	14	9	74	74	148	11·26	11·90	11'59	55
89	107	94	177	209	246	184	150	902	577	1,479	2·12	1·62	1'89	56
136	161	172	360	543	405	323	230	1,511	1,123	2,634	3·14	2·76	2'96	
11	23	11	27	34	39	23	14	140	91	231	3·48	2·33	2'91	57
...	...	...	...	...	...	...	...	...	1	1	...	·12	·05	58
...	...	1	...	8	...	...	...	9	1	10	1·70	·19	·96	59
55	25	64	48	69	77	74	46	340	255	595	·76	·69	·73	60
66	48	76	75	111	116	97	60	489	348	837	·97	·83	·91	
...	...	...	...	...	...	...	1	2	...	2	·17	...	·09	61
...	1	...	1	...	1	...	...	3	...	3	·55	...	·29	62
22	21	12	30	39	28	38	32	178	127	305	·43	·39	·41	63
22	22	12	31	39	29	39	33	183	127	310	·42	·37	·40	
65	61	65	108	164	160	86	85	533	445	978	6·71	6·38	6'56	64
...	...	...	3	...	...	...	...	2	2	4	·27	·29	·28	65
34	83	98	118	291	283	118	128	893	577	1,470	1·77	1·34	1'57	66
149	144	163	229	455	443	204	213	1,428	1,024	2,452	2·42	2·02	2'24	
5	4	4	10	17	18	13	7	57	36	93	3·48	2·53	3'04	67
37	29	44	48	122	104	81	78	467	305	772	1·32	1·07	1'20	68
42	33	48	58	139	122	94	85	524	341	865	1·41	1·14	1'29	
12	15	8	24	53	32	28	25	171	117	288	2·52	2·12	2'34	69
74	52	76	134	199	209	171	140	788	579	1,367	1·42	1·20	1'32	70
86	67	84	158	252	241	205	165	959	696	1,655	1·54	1·29	1'43	
8	4	3	19	16	14	5	6	48	38	86	4·66	3·96	4'32	71
196	147	130	191	296	299	352	326	1,480	1,117	2,597	4·41	3·61	4'03	72
204	151	133	210	312	313	357	332	1,523	1,155	2,683	4·41	3·62	4'04	
...	...	2	2	...	...	...	9	12	6	18	1·05	·50	·77	73
65	42	22	47	41	33	25	57	300	156	456	·56	·33	·45	74
65	42	24	49	41	33	25	66	312	162	474	·57	·33	·46	
4	...	1	21	37	42	28	11	74	71	145	10·43	9·56	9'99	75
148	203	163	307	547	537	441	293	2,080	1,328	3,408	7·72	5·40	6'62	76
152	203	164	328	584	579	469	304	2,154	1,399	3,553	7·70	5·53	6'71	

APPEN
ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of 1872.*			January.	February.	March.	April.
			Male.	Female	Total.				
77	Banda	Banda T.,...	14,225	13,521	27,746	14	4	5	4
78		In 28 Rural Circles, ...	345,540	324,325	669,865	160	139	116	67
		Total of District, ...	359,765	337,846	697,611	174	143	121	71
79	Allahabad.	Allahabad T., ...	80,644	63,049	143,693	4	7	4	3
80		In 33 Rural Circles, ...	634,466	616,086	1,250,552	295	223	237	194
		Total of District, ...	715,110	679,135	1,394,245	299	230	241	197
81	Goruckpore.	Goruckpore T., ...	27,544	23,573	51,117	1	6	4	3
82		In 35 Rural Circles, ...	1,050,528	917,705	1,968,233	151	205	188	193
		Total of District, ...	1,078,072	941,278	2,019,350	152	211	192	196
83	Bustee.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994	27	23	30	37
84	Azimgurh.	Azimgurh T., ...	8,756	7,014	15,770	...	2	1	4
85		Mhow T., ...	5,794	5,521	11,315	1	...	...	...
86		In 27 Rural Circles, ...	811,595	692,730	1,504,325	164	113	191	229
		Total of District, ...	826,145	705,265	1,531,410	165	115	192	233
87	Ghazeepore.	Ghazeepore T., ...	19,582	19,271	38,853	7	13	10	22
88		In 27 Rural Circles, ...	676,990	629,558	1,306,548	67	53	51	60
		Total of District, ...	696,572	648,829	1,345,401	74	66	61	82
89	Benares.	Benares T., ...	89,763	85,425	175,188	34	21	28	20
90		Ramnuggur T., ...	6,256	5,697	11,953	5	5	2	10
91		In 14 Rural Circles, ...	310,325	296,233	606,558	60	37	65	71
		Total of District, ...	406,344	387,355	793,699	99	63	95	101
92	Mirzapore.	Mirzapore T., ...	34,820	32,454	67,274	19	19	30	18
93		Chunar T., ...	4,989	5,165	10,154	...	1	3	1
94		In 22 Rural Circles, ...	480,687	457,178	937,865	86	61	105	117
		Total of District, ...	520,496	494,797	1,015,293	105	81	138	136
95	Jaloun.	Calpee T., ...	8,021	7,549	15,570	1	1	1	3
96		Koonch T., ...	7,309	7,139	14,448	...	...	...	3
97		Jaloun T., ...	5,309	4,888	10,197	...	...	1	1
98		In 21 Rural Circles, ...	195,968	168,201	364,169	41	31	48	23
		Total of District, ...	216,607	187,777	404,384	42	32	50	30
99	Jhan-sie.	Mow, ...	8,205	8,223	16,428	10	6	6	5
100		In 24 Rural Circles, ...	159,314	141,993	301,307	64	49	45	45
		Total of District, ...	167,519	150,216	317,735	74	55	51	50
101	Lullut-pore.	Total of District containing 20 Circles, ...	111,625	101,003	212,628	47	39	57	60
		Grand Total for the Province, ...	16,406,833	14,362,223	30,769,056	4,229	3,309	3,480	3,879

DIX I.
FORM No. IX.
of the North-Western Provinces during each month of the year 1873.—(concluded.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
3	7	12	65	54	51	25	17	153	128	281	10·75	9·46	10·12	77
109	127	126	178	372	508	314	263	1,451	1,028	2,479	4·19	3·16	3·70	78
112	134	138	243	426	559	339	280	1,604	1,156	2,760	4·45	3·42	3·95	
4	4	6	10	7	4	2	4	33	26	59	·40	·41	·41	79
236	253	270	314	399	442	447	321	2,088	1,543	3,631	3·29	2·50	2·90	80
240	257	276	324	406	446	449	325	2,121	1,569	3,690	2·96	2·30	2·64	
1	1	4	3	3	1	1	..	20	8	28	·72	·33	·54	81
119	111	136	229	266	231	256	199	1,562	722	2,284	1·48	·78	1·16	82
120	112	140	232	269	232	257	199	1,582	730	2,312	1·46	·77	1·14	
49	37	36	58	57	43	36	30	343	120	463	·43	·17	·31	83
8	...	14	6	10	8	5	13	46	25	71	5·25	3·56	4·50	84
...	1	...	6	15	6	1	2	15	17	32	2·58	3·07	2·82	85
202	154	179	343	370	258	226	260	1,587	1,102	2,689	1·95	1·59	1·78	86
210	155	193	355	395	272	232	275	1,648	1,144	2,792	1·99	1·62	1·82	
23	9	15	25	19	13	12	9	93	84	177	4·74	4·35	4·55	87
79	91	248	184	188	92	86	68	760	507	1,267	1·12	·80	·96	88
102	100	263	209	207	105	98	77	853	591	1,444	1·22	·91	1·07	
34	24	24	78	53	38	25	31	241	169	410	2·68	1·97	2·34	89
3	1	2	6	19	...	6	...	37	22	59	5·94	3·86	4·93	90
62	90	101	183	242	189	168	94	867	495	1,362	2·78	1·67	2·24	91
99	115	127	267	314	227	199	125	1,145	686	1,831	2·81	1·77	2·30	
16	17	13	43	35	37	16	21	157	127	284	4·50	3·91	4·22	92
4	1	2	7	18	16	6	1	24	36	60	4·81	6·97	5·90	93
156	125	102	148	168	193	163	154	995	583	1,578	2·06	1·27	1·68	94
176	143	117	198	221	246	185	176	1,176	746	1,922	2·25	1·50	1·89	
...	...	3	1	6	10	1	3	16	14	30	1·99	1·85	1·92	95
...	3	1	4	6	11	14	2	28	16	44	3·83	2·24	3·04	96
...	...	...	...	...	...	...	...	1	1	2	·18	·20	·19	97
50	40	28	51	91	126	91	60	400	280	680	2·04	1·65	1·86	98
50	43	32	56	103	147	106	65	445	311	756	2·05	1·65	1·86	
7	4	7	12	15	29	29	12	85	57	142	10·35	6·93	8·64	99
44	61	40	60	69	57	67	37	392	266	658	2·46	1·87	2·18	100
51	65	47	92	84	86	96	49	477	323	800	2·84	2·15	2·51	
86	87	85	118	135	117	113	69	595	418	1,013	5 33	4·13	4·76	101
4,700	4,728	4,562	7,073	10,245	9,817	7,680	5,941	40,468	29,173	69,641	2·46	2·03	2·26	

APPEN

ANNUAL

Statement of BIRTHS registered within the limits of the several Municipalities

1.	2.	3.	4.	5.		
Number.	Division.	District.	Name of Municipality.	*Population of Municipality according to Census of* 1872.		
				Male.	Female.	Total.
1	Kumaon.	Kumaon, ...	Almorah, ...	2,110	2,015	4,125
2			Nynee Tal, ...	2,437	1,074	3,511
3		Terai, ...	Kasheepore, ...	6,783	6,438	13,221
4	Rohilkhund.	Bijnour, ...	Bijnour, ...	7,025	5,840	12,865
5			Chandpore, ...	6,170	5,863	12,033
6			Dhampore, ...	3,335	3,220	6,555
7			Nugeena, ...	9,981	9,715	19,696
8			Nujeebabad, ...	8,964	8,454	17,418
9		Moradabad, ...	Moradabad, ...	32,804	29,613	62,417
10			Dhunoura, ...	3,012	2,275	5,287
11			Chundowsee, ...	12,706	10,980	23,686
12			Amroha, ...	16,910	17,994	34,904
13			Sumbhul, ...	23,391	23,583	46,974
14		Bareilly, ...	Bareilly, ...	55,148	47,834	102,982
15			Phillibheet, ...	15,138	14,702	29,840
16			Beesulpore, ...	5,068	4,182	9,250
17		Shahjehanpore, ...	Shajehanpore, ...	36,215	35,921	72,136
18			Tilhur, ...	5,693	5,593	11,286
19		Budaon, ...	Budaon, ...	16,848	16,474	33,322
20			Bilsee, ...	2,754	2,528	5,282
21			Oojhanee, ...	3,944	3,712	7,656
22			Suheswan, ...	8,618	8,445	17,063
23	Meerut.	Dehra Doon, ...	Dehra, ...	8,476	5,719	14,195
24			Mussoorie, ...	2,060	385	2,445
25		Seharunpore, ...	Seharunpore, ...	23,272	20,572	43,844
26			Hurdwar Union, ...	10,358	8,381	18,739
27			Deobun, ...	10,083	9,085	19,168
28		Moozuffurnuggur, ...	Moozuffurnuggur, ...	6,105	4,688	10,793
29		Meerut, ...	Meerut, ...	44,035	37,351	81 386
30			Ghazeeabad, ...	3,925	3,440	7,365
31			Barote, ...	3,723	3,333	7,056
32			Baghput, ...	3,995	3,372	7,367
33			Shahdra, ...	3,804	3,453	7,257
34			Haupper, ...	7,601	6,943	14,544
35			Pilkooah, ...	3,329	2,910	6,239
36		Boolundshuhur, ...	Boolundshuhur, ...	7,730	7,074	14,804
37			Anoopshuhur, ...	4,949	4,387	9,336
38			Secundrabad, ...	9,514	8,835	18,349
39			Khoorja, ...	13,770	13,088	26,858
40		Allygurh, ...	Coel, ...	31,762	26,777	58,539
41			Hatrass, ...	12,718	10,871	23,589
42			Secundra Rao, ...	6,668	5,974	12,642
43			Atrowlee, ...	8,239	7,702	15,941
44			Hurdooagunge, ...	3,568	3,402	6,970

DIX J.

FORM No. X.

in the North-Western Provinces during the year 1873.

6.											7.			8.			9.
NUMBER OF BIRTHS REGISTERED DURING THE YEAR.											*Ratio of births to 1,000 of the population.*			*Ratio of deaths to 1,000 of the population.*			
Hindoos.			*Mahomedans.*			*Europeans and Eurasians.*			*Total.*								
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Tot. l.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
46	48	94	11	10	21	2	2	4	59	60	119	27·96	29·77	28·84	20·85	18·85	19·87	1
28	24	52	...	4	4	...	...	...	28	28	56	11·48	26·07	15·95	35·28	37·24	35·88	2
150	81	231	119	84	203	...	...	...	269	165	434	39·65	25·62	32·82	49·83	37·74	43·94	3
109	73	182	111	73	184	2	...	2	222	146	368	31·60	25·00	28·60	19·07	19·00	19·04	4
101	94	195	244	224	468	...	1	1	345	319	664	55·91	54·40	53·51	34·84	30·18	32·57	5
89	100	189	68	54	122	...	1	1	157	155	312	47·07	48·13	47·59	24·59	22·67	23·64	6
151	67	218	183	147	330	...	...	...	334	214	548	33·46	22·02	27·82	16·03	15·33	15·68	7
203	158	361	232	151	383	...	...	...	435	309	744	43·52	36·55	42·71	31·23	21·41	26·46	8
564	489	1,053	568	520	1,088	...	...	...	1,132	1,009	2,141	34·50	34·07	34·30	28·47	27·08	27·81	9
105	68	173	12	8	20	...	...	...	117	76	193	38·84	33·40	36·50	37·51	29·45	34·04	10
323	270	593	129	88	217	8	7	15	460	365	825	36·20	33·24	34·83	36·67	36·15	36·43	11
182	167	349	570	512	1,082	1	1	2	753	680	1,433	44·53	37·79	41·05	33·88	28·89	31·31	12
320	255	575	532	439	971	...	...	...	852	694	1,546	36·42	29·42	32·91	28·47	26·19	27·33	13
1,004	749	1,753	779	676	1,455	1	1	2	1,784	1,426	3,210	32·34	29·81	31·17	29·77	34·95	32·18	14
207	181	388	139	111	250	...	1	1	346	293	639	22·19	19·92	28·11	32·23	25·77	29·05	15
135	129	264	69	74	143	...	...	...	204	203	407	40·25	48·54	44·00	77·94	72·21	75·35	16
652	573	1,225	684	523	1,207	7	...	7	1,343	1,096	2,439	37·08	30·51	33·81	28·02	26·22	27·12	17
234	230	464	249	198	447	...	...	...	483	428	911	84·84	76·52	80·71	72·19	59·35	65·83	18
205	167	372	297	238	535	...	...	...	502	405	907	29·79	24·58	27·21	12·28	14·26	13·26	19
116	65	181	18	8	26	...	...	...	134	73	207	48·65	28·87	39·19	26·87	19·77	23·47	20
91	49	140	46	39	85	...	...	...	137	88	225	34·73	23·70	29·38	26·87	29·90	28·34	21
178	150	328	144	142	286	...	...	...	322	292	614	37·36	34·57	35·98	44·32	38·72	41·55	22
135	89	224	34	30	64	5	5	10	174	124	298	20·52	21·68	20·99	23·24	22·38	22·90	23
12	3	15	2	2	4	6	...	6	20	5	25	9·70	12·98	10·22	23·30	62·33	29·44	24
410	337	747	607	464	1,071	...	...	...	1,017	801	1,818	43·70	38·98	41·46	41·20	41·75	41·46	25
168	130	298	75	46	121	...	...	...	243	176	419	23·46	20·99	22·36	22·59	13·24	18·41	26
200	143	343	223	174	397	...	...	...	423	317	740	41·95	34·89	38·56	28·95	27·51	28·27	27
138	102	240	82	68	150	...	...	...	220	170	390	36·03	36·26	36·13	21·29	25·17	22·97	28
434	382	816	455	368	823	1	...	1	890	750	1,640	20·21	20·08	20·15	22·80	25·16	23·88	29
141	102	243	48	55	103	...	1	1	189	158	347	48·15	45·93	47·11	39·74	43·60	41·54	30
129	111	240	33	52	85	...	1	1	162	164	326	43·51	49·20	46·20	59·62	61·50	60·51	31
95	84	179	45	39	84	...	...	...	140	123	263	35·04	36·47	35·70	48·56	51·30	49·81	32
90	80	170	21	25	46	...	...	...	111	105	216	29·18	30·40	29·76	41·27	41·12	41·20	33
172	139	311	119	85	204	...	...	...	291	224	515	38·28	32·26	35·41	53·67	55·73	54·66	34
109	111	220	7	6	13	...	...	...	116	117	233	34·84	40·20	37·34	54·67	57·38	55·93	35
181	188	369	176	141	317	1	...	1	358	329	687	46·31	46·50	46·40	47·21	47·07	47·14	36
179	170	349	63	61	124	...	...	...	242	231	473	48·89	52·65	50·66	41·82	55·61	48·30	37
285	306	591	187	190	377	...	...	...	472	496	968	49·61	56·14	52·75	38·67	35·54	37·16	38
424	352	776	266	250	516	...	...	...	690	602	1,292	50·10	45·99	48·10	58·09	61·65	59·83	39
694	622	1,316	323	301	624	...	...	...	1,017	923	1,940	32·01	34·47	33·14	32·33	37·64	34·76	40
529	541	1,070	60	56	116	...	...	...	589	597	1,186	46·31	54·91	50·27	47·17	51·69	49·26	41
131	110	241	111	112	223	...	...	...	242	222	464	36·29	37·16	36·70	23·84	27·11	25·39	42
222	170	392	123	84	207	...	...	...	345	254	599	41·87	32·97	37·57	45·63	45·18	45·41	43
95	65	160	7	11	18	2	...	2	104	76	180	29·14	22·33	25·82	56·05	47·91	52·08	44

APPEN

ANNUAL

Statement of Births Registered within the limits of the several Municipalities

1.	2.	3.	4.	5.		
Number.	Division.	District.	Name of Municipality.	*Population of Municipality according to Census of* 1872.		
				Male.	Female.	Total.
45	Agra.	Etah, ...	Etah, ...	4,885	3,159	8,044
46			Soron, ...	5,881	5,301	11,182
47			Kassgunge, ...	8,393	7,371	15,764
48			Murehra, ...	4,527	4,687	9,214
49			Allygunge, ...	3,939	3,973	7,912
50		Muttra, ...	Muttra, ...	30,786	28,495	59,281
51			Julleysur, ...	8,110	7,584	15,694
52			Kosee, ...	6,568	6,202	12,770
53			Bindrabun, ...	10,602	9,748	20,350
54		Furruckabad, ...	Futtehgurh, ...	40,156	39,048	79,204
55		Mynpoory, ...	Mynpoory, ...	11,326	9,851	21,177
56		Agra, ...	Agra, ...	79,344	69,664	149,008
57			Futtehpore Sikree, ...	3,617	3,261	6,878
58			Ferozabad, ...	7,395	6,860	14,255
59		Etawah, ...	Etawah, ...	16,344	14,205	30,549
60			Juswuntnuggur, ...	2,856	2,454	5,310
61	Allahabad.	Cawnpore, ...	Cawnpore, ...	67,663	55,107	122,770
62		Futtehpore, ...	Futtehpore, ...	10,297	9,582	19,879
63		Jounpore, ...	Jounpore, ...	11,404	11,923	23,327
64		Banda, ...	Banda, ...	14,225	13,521	27,746
65		Allahabad, ...	Allahabad, ...	80,644	63,049	143,693
66	Benares.	Goruckpore, ...	Goruckpore, ...	27,544	23,573	51,117
67		Azimgurh, ...	Azimgurh, ...	8,756	7,014	15,770
68		Ghazeepore, ...	Ghazeepore, ...	19,582	19,271	38,853
69			Bullia, ...	4,184	4,337	8,521
70		Benares, ...	Benares, ...	89,763	85,425	175,188
71		Mirzapore, ...	Mirzapore, ...	34,820	32,454	67,274
72			Chunar, ...	4,989	5,165	10,154
73	Jhansie.	Jaloun, ...	Orai, ...	2,736	2,422	5,158
74			Calpee, ...	8,021	7,549	15,570
75			Koonch, ...	7,309	7,139	14,448
76		Jhansie, ...	Jhansie, ...	304	232	536
77			Mowraneepore, ...	11,579	11,544	23,123
78		Lullutpore, ...	Lullutpore, ...	4,463	4,513	8,976
			Total, ...	1,167,750	1,049,880	2,217,630

DIX J.

FORM No. X.

in the North-Western Provinces during the year 1873.—(concluded.)

6.													7.			8.			9.
Number of Births registered during the year.													*Ratio of births to 1,000 of the population.*			*Ratio of deaths to 1,000 of the population.*			
Hindoos.			*Mahomedans.*			*Europeans and Eurasians.*			*Total.*										
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Total.	Number.
93	91	184	29	24	53	...	...	...	122	115	237		24·97	36·40	29·46	23·13	34·50	27·59	45
260	219	479	38	23	61	...	...	...	298	242	540		50·67	45·65	48·29	53·56	55·27	54·37	46
257	211	468	101	75	176	...	...	...	358	286	644		42·65	38·80	40·85	44·20	47·48	45·73	47
76	52	128	64	40	104	...	...	...	140	92	232		30·92	19·62	25·17	33·35	27·30	30·28	48
106	85	191	55	43	98	...	...	...	161	128	289		40·87	32·21	36·52	34·78	26·93	30·83	49
958	892	1,850	200	188	388	...	...	...	1,158	1,080	2,238		37·61	37·90	37·75	38·00	36·77	37·41	50
208	226	434	135	140	275	...	...	...	343	366	709		42·29	48·26	45·17	39·45	38·23	38·86	51
178	127	305	70	69	139	...	...	...	248	196	444		37·75	31·60	34·76	38·97	34 66	36·88	52
291	248	539	15	8	23	...	1	1	306	257	563		28·86	26·36	27·66	46·50	43 80	45·20	53
584	333	917	224	144	368	1	...	1	809	477	1,286		20·14	12·21	16·23	29·85	23 38	26·66	54
330	222	552	53	41	94	...	1	1	383	264	647		33·81	26·79	30·55	32·93	31·36	32·20	55
1,483	1,358	2,841	567	522	1,089	7	4	11	2,057	1,884	3,941		25·92	27·01	26·44	36·14	37·47	36·77	56
73	61	134	38	25	63	...	...	...	111	86	197		30·68	26·37	28 64	26·26	22·07	24·28	57
128	105	233	49	42	91	...	...	...	177	147	324		23·93	21·42	22·72	33·26	30·90	32·12	58
463	440	903	193	170	363	...	...	...	656	610	1,206		40·13	43·94	39·47	31·75	36·25	33·84	59
92	93	185	54	48	102	...	...	...	146	141	287		51·12	57·45	54·04	23·80	23·63	23·73	60
901	647	1,548	284	223	507	4	1	5	1,189	871	2,060		17·57	15·80	16·77	30·93	30·99	30·96	61
128	110	238	74	50	124	...	...	...	202	160	362		19·61	16·69	18·21	41·66	34·54	38·23	62
402	343	745	211	165	376	1	1	2	614	509	1,123		53·84	42·69	48·14	74·53	59·71	66·96	63
333	288	621	111	75	186	...	...	...	444	363	807		31·21	26·84	29·08	42·03	36·46	39·32	64
902	759	1,661	258	270	528	19	14	33	1,179	1,043	2,222		14·61	16·54	15·46	10·56	11·45	10·95	65
524	440	964	236	210	446	...	...	...	760	650	1,410		27·59	27·57	27·58	48·97	35·54	42·78	66
142	99	241	46	55	101	...	...	...	188	154	342		21·47	21·95	21·68	31·97	41·20	36·08	67
488	403	891	231	161	392	1	1	2	720	565	1,285		36·76	29·31	33·07	31·66	28·02	29·85	68
153	101	254	39	29	68	...	...	...	192	130	322		45·88	29·97	37·78	30·34	23·97	27·10	69
1,927	1,498	3,425	537	399	936	7	3	10	2,471	1,900	4,371		27·52	22·24	24·95	29·07	22·75	26·01	70
1,092	919	2,011	171	164	335	5	1	6	1,268	1,084	2,352		36 41	33·40	34·96	43·59	37·93	40·86	71
207	183	390	63	59	122	3	3	6	273	245	518		54·72	47·43	51·01	63·33	57·50	60·37	72
127	128	255	34	33	67	...	...	...	161	161	322		58·84	66·47	62·42	39·47	34·68	37·22	73
203	148	351	52	46	98	...	...	...	255	194	449		31·79	25·69	28·83	40·02	29·80	35·07	74
256	204	460	45	38	83	...	...	...	301	242	543		41·18	33·89	37·58	23·80	14·71	19·31	75
9	18	22	4	1	5	...	...	...	13	14	27		42·76	60 34	50·37	118·42	90·51	106·34	76
356	224	580	26	14	40	...	...	...	382	238	620		32·99	20·61	26·81	30·22	21 03	25·62	77
199	108	307	25	18	43	...	...	...	224	126	350		50·19	27·91	38·99	30·92	26·81	28·85	78
24,095	19,902	43,997	12,603	10,555	23,158	84	51	135	36,782	30,508	67,290		31·49	29 05	30·34	35·67	33·92	34·84	

APPEN

FORM

Statement showing Deaths, Births, and Marriages reg istered in all Cantonments

1.	2.	3.	4.				5.																							
			CLASS OF THOSE WHO DIED.				CAUSE OF DEATH.																							
							Cholera.			*Small-pox.*			*Fever.*			*Bowel Complaints.*			Injuries.											
																			Suicide.			*Wounding.*			*Accident.*					
Number.	Name of Cantonments.	Population.	Hindoos.	Mahomedans.	Christians.	Others.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
1	Chuckrata, ...	1,256	6	10	...	11	...	...	...	...	...	...	7	1	8	8	3	11	...	...	...	...	...	...	3	...	3			
2	Landour, ...	525	5	...	...	3	...	...	...	3	...	3	1	1	2	...	2	2	...	...	...	...	...	...	...	...	...			
3	Dehra, ...	1,666	16	11	...	...	...	...	...	...	...	...	15	9	24	1	2	3	...	...	...	...	...	...	...	...	...			
4	Roorkee, ...	1,160	11	6	...	...	...	...	...	...	...	...	4	7	11	...	1	1	...	...	...	...	...	...	...	...	...			
5	Meerut, ...	26,139	331	204	2	110	...	...	...	...	...	...	233	257	490	2	...	2	1	...	1	...	...	...	2	2	4			
6	Nynee Tal, ...	445	3	...	...	3	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...			
7	Raneekhet, ...	5,500	12	23	22	20	...	...	...	...	...	...	24	4	28	19	4	23	...	...	...	1	...	1	...	...	...			
8	Almorah, ...	745	13	1	...	...	...	...	...	...	...	...	...	...	...	2	3	5	...	...	...	...	...	...	1	1				
9	Bareilly, ...	8,548	85	31	...	18	...	...	...	...	...	...	48	24	72	5	3	8	...	...	...	...	...	...	3	1	4			
10	Moradabad, ...	1,043	6	1	2	...	...	...	...	...	...	...	4	1	5	1	1	2	...	...	...	...	...	...	...	...	...			
11	Shahjehanpore, ...	5,876	69	40	4	...	...	...	...	5	3	8	35	20	55	4	8	12	...	...	...	...	...	...	1	1				
12	Futtehgurh, ...	4,192	48	9	1	2	...	...	...	4	1	5	27	19	46	3	...	3	...	...	...	...	...	...	...	...	...			
13	Agra, ...	18,736	393	73	5	2	3	2	5	3	1	4	141	162	303	41	31	72	...	...	...	2	...	2	3	...	3			
14	Muttra, ...	3,149	32	4	...	7	...	1	1	...	...	...	19	13	32	2	1	3	...	...	...	...	...	...	1	1				
15	Cawnpore, ...	33,840	386	51	5	4	8	5	13	17	10	27	183	126	309	5	4	9	1	...	1	1	...	1	1	...	1			
16	Allahabad, ...	6,450	112	16	37	...	23	3	26	2	4	6	43	19	62	15	11	26	...	...	...	...	...	...	...	...	...			
17	Banda, ...	1,722	26	10	1	4	4	5	9	...	...	...	6	5	11	3	2	5	...	...	...	...	...	...	...	...	...			
18	Jhansie, ...	4,162	23	5	2	...	1	...	1	...	...	...	9	8	17	3	2	5	...	...	...	...	...	...	...	...	...			
19	Benares, ...	5,403	40	20	2	...	5	...	5	...	1	1	23	14	37	5	7	12	...	...	...	...	...	...	1	1	2			
20	Chunar, ...	...				*Nil.*									*Nil.*									*Nil.*						
21	Goruckpore, ...	1,014	24	9	3	7	...	1	1	...	...	...	19	13	26	1		1	...	...	...	...	...	...	...	...	...			
	Total, ...	131,571	1,641	524	86	191	44	17	61	34	20	54	835	703	1,538	122	85	207	2	...	2	4	...	4	13	7	20			

DIX K.

No. XI.

of the North-Western Provinces during the months of April to December, 1873.

Snake bite or killed by Wild beasts.				All other Causes.			Total deaths.			6. AGE AT TIME OF DEATH.								7.			8.	9.			10
										Infants.		Boys and Girls.		Adults.		Old People.		Number of Births registered.			Number of marriages registered.	RATIO PER 1,000 OF POPULATION.			
Male.	Female.	Total.	Total Injuries.	Male.	Female.	Total	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female	Total.		Of Deaths.	Of Births.	Of Marriages.	Number.
...	...	...	3	4	1	5	22	5	27	...	1	...	1	12	1	10	2	3	1	4	1	21·49	3·18	0·79	1
...	...	...	...	1	...	1	5	3	8	2	1	1	1	1	1	1	...	...	...	...	1	15·23	...	1·90	2
...	...	...	...	...	...	...	16	11	27	4	2	3	2	6	4	3	3	2	1	3	3	16·20	1·80	1·80	3
...	...	...	...	4	1	5	8	9	17	3	...	3	2	...	1	2	6	...	...	...	...	14·65	...	...	4
1	...	1	6	86	63	149	325	322	647	99	80	44	57	76	89	106	96	162	150	312	244	24·75	11·93	9·33	5
...	...	...	...	1	3	4	3	3	6	1	2	1	1	1	...	...	...	...	...	...	...	13·48	...	...	6
...	...	...	1	21	4	25	65	12	77	11	2	9	5	34	4	11	1	10	4	14	...	14·00	2·54	...	7
...	...	...	1	5	3	8	7	7	14	4	...	2	3	1	3	...	1	4	8	12	...	18·79	16·10	...	8
...	1	1	5	26	23	49	82	52	134	37	25	14	5	12	13	19	9	...	...	...	...	15·67	...	...	9
...	...	...	...	...	2	2	5	4	9	3	...	...	2	2	1	...	1	...	...	...	...	8·62	...	...	10
2	2	4	5	20	13	33	66	47	113	25	22	12	7	14	9	15	9	16	18	34	...	19·23	5·78	...	11
...	...	...	...	2	4	6	36	24	60	9	6	5	6	10	8	12	4	...	...	...	...	14·31	...	...	12
1	...	1	6	42	41	83	236	237	473	69	68	74	69	47	61	46	39	236	227	463	15	25·24	24·71	0·80	13
...	...	...	1	5	1	6	26	17	43	5	7	7	2	4	5	10	3	24	15	39	2	13·65	12·38	0·63	14
1	...	1	4	59	25	84	276	170	446	75	39	62	41	75	51	64	39	...	...	...	...	13·17	...	...	15
...	...	...	...	21	24	45	104	61	165	18	18	18	17	44	16	24	10	...	...	...	...	25·58	...	...	16
1	...	1	1	9	6	15	23	18	41	4	2	10	9	5	5	4	2	25	15	40	6	23·80	23·22	3·48	17
1	...	1	1	5	1	6	19	11	30	5	3	...	1	11	6	3	1	2	2	4	...	7·20	0·96	...	18
...	...	...	2	1	4	5	35	27	62	5	7	11	11	9	4	10	5	28	15	43	35	11·47	7·95	6·47	19
					Nil.									*Nil.*									*Nil.*		20
...	...	...	...	8	7	15	22	21	43	7	5	6	5	4	7	5	4	...	...	...	...	42·40	...	...	21
7	3	10	36	320	226	546	1,381	1,061	2,442	386	290	282	247	368	289	345	235	512	456	968	307	18·56	7·35	2·33	

ORDERS OF GOVERNMENT.

No. 181A. OF 1874.

FROM

THE SECRETARY TO GOVERNMENT,

NORTH-WESTERN PROVINCES,

To

THE OFFG. SANITARY COMMISSIONER,

NORTH-WESTERN PROVINCES.

DATED NAINI TAL, THE 20TH AUGUST, 1874.

SIR,

GENERAL DEPT. (SANITATION.)

THE sixth Annual Report of the Sanitary Commissioner has been laid before His Honor the Lieutenant-Governor, and I am desired to communicate to you the following remarks and orders thereon.

2. The report was written by Mr. Planck before his departure on leave; and it is no doubt due to his anxiety to complete it before going, that the omission to notice several points referred to in the orders of last year is due. Para. 11 of last year's review, for example, repeated the instructions given in the preceding year, that the comparative mortality among male and female children should be prominently noticed, as bearing on infanticide, but no reference has been made to the subject. On various other points also information was called for, which has not been supplied.

Omissions in the report.

3. The report consists, like last year's, of five chapters, treating of mortuary registration, of the meteorology of the year, the history of mortality and chief diseases, of the inspections of the Sanitary Commissioner, and of sanitary improvements during the year. The reports of inspections of towns have already been separately received, and such orders as seemed proper have been passed upon them. It is therefore not necessary to touch upon them again here. The Government of India, in acknowledging last year's report, expressed a wish that these details should not be in future included in the annual reports, and instructions to that effect were duly communicated to Mr. Planck. He has, however, included them in the present report, in order to complete the series of inspections of all the towns in the North-Western Provinces on one plan, and to this no objection need be made. But as all towns with a population of 5,000 and upwards in these Provinces have now been inspected and reported on, this chapter, which has hitherto formed the largest part of the annual report, will be omitted in future. As the Sanitary Commissioner has now completed his tour of general inspection throughout the Provinces, he will have more leisure to devote either to such special

Details of inspection reports to be omitted in future.

inspections of particular localities as may seem necessary, or to advising Government on such subjects as Lock Hospitals, with reference to which a separate communication has lately been addressed to you. Besides this, the Government of India has, in a recent letter, called attention to the duties which Sanitary Commissioners should perform, and the aid they should give in connection with Municipalities. You have been authorised to attend meetings of Municipal Committees with the view of advising them in sanitary matters, and these duties will no doubt to a great extent fill up the time formerly given to the tour of inspection.

Appendices to be curtailed in future.

4. It is observed that the appendices are much fuller this year than last, taking up no less than three times the former space. This is due partly to the population being shewn in greater detail than before, separate columns being given for males and females, and partly to the returns for towns of 10,000 and upwards being separated from those of rural circles. This was done in pursuance of the orders in paras. 6 and 7 of last year's review, and the separation would be useful if you totalled up the mortality in towns and in the country separately, and drew any conclusions on the subject, but the mere entry of the dry figures in an Appendix is in no way profitable, and does not fulfil the intentions of Government. Again, in para. 7 of the review it was desired that Municipal returns should be specially noticed, on the ground that they might be expected to be more accurate than the others. This order has been entirely overlooked, for though a statement of births registered in Municipalities is given, there is no such record of the deaths, and the report itself does not refer to the subject. It is observed that your appendices shew seven times over (in Statements II., III., V., VI., VII., VIII., IX.) the population of each town and group of circles,—a useless reiteration, which might well be avoided.

Deaths registered in the year.

5. *Paras.* 5 *to* 11.—Turning now to the statistics of the year, we find that 704,924 deaths were registered during 1873, against 703,248 in the preceding year. The returns are gradually improving, though still no doubt, as a whole, very deficient. The average duration of life, as deduced from them for the past four years, is given by Mr. Planck as follows :—

1870.	1871.	1872.	1873.
61 years.	51 years.	44 years.	43½ years.

The average duration of life in England, France, Holland, Prussia, Italy, Spain, and Russia, is a little below 35 years ; and a writer, who is an authority on statistical subjects, quoted by Mr. Plowden in para. 111 of Volume 1 of the Census Report, puts the average in India at one-eighth less, or at 30 years and 8 months. Whether this be right or wrong, the figures of the past four years, in which increased attention to registration has resulted in shewing a diminishing duration of life, are in themselves sufficient to prove that while a certain amount of progress has been made, nothing like accuracy has yet been attained.

Highest and lowest districts in death registration.

6. The 9 districts in which the mortality rate is highest and lowest this year stand thus :—

Highest.	Rate per mille.	Lowest.	Rate per mille.
Bulandshahar	32·34	Farakhabad, ...	13·69
Shahjahanpur, ...	30·68	*Dehra Dún,*	16·51
Tarai, ...	30·41	*Azimgarh.*	17·71
Gorakhpur, ...	29·69	Etawa, ...	18·32
Benares, ...	26·63	Mainpuri, ...	18·58
Cawnpore, ...	26·34	Basti, ...	18·77
Mirzapur, ...	25·95	Allahabad, ...	18·89
Meerut, ...	25·83	*Muttra,*	19·37
Kúmaon, ...	25·74	Garhwal, ...	19·98

The districts in italics appeared last year also among the highest or lowest, so that good or bad registration appears to be inveterate in them. Farakhabad, which is now worst of all, was not mentioned last year, but the death-rate, 18·24 per thousand, was quite inadequate, though not so bad as it is now. Benares, on the other hand, which was last year classed as one of the worst districts (18·46), is now one of the best, which shews that attention has been paid to the subject. Azimgarh and Muttra, which were last year noticed as particularly bad, remain in much the same state this year, but Gházipur has improved considerably.

Registration through Police agency.

7. The Lieutenant-Governor has noticed with satisfaction the testimony borne by you to the way in which the work of registration is done by the Police. The attention of the Magistrates and Civil Surgeons of the nine districts named above, especially of Farakhabad, will be called to the deficient registration ; and with reference to the remarks made in para. 2 of the report as to the dilatoriness of Badaon, Bareilly, and Meerut, the Civil Surgeons of those places will be asked for explanation.

Instructions on points of detail to be issued by Sanitary Commissioner.

8. *Para.* 2.—In the same paragraph the practice of dividing the form used for registration, and using each half for the return of a different month, and also that of writing in the register daily, by which much space is wasted, are commented on. I am only desired to notice this here, to remark that such details need not be brought before Government in an annual report. The Sanitary Commissioner should himself have ascertained whether any mistaken orders had issued in Banda about the registers, and should have had the matter put to rights, and this you can now do. It will only be necessary to refer to Government if the instructions given are not attended to,—a contingency which is not likely to arise.

Maps shewing mortuary circles.

9. *Para.* 3.—With reference to the request made in para. 3 for maps shewing the limits of the mortuary circles, I am to say that as very few copies of such maps can be wanted, it hardly seems worth while to go to the expense of printing them.

It would be sufficient to trace the circles on the existing district maps from the provincial map.

Comparative death-rate of Hindús and Muhamadans.

10. *Para.* 12.—The death-rate among Hindús was rather higher than last year, 22·9 per thousand against 22·7 ; that amongst Muhamadans was considerably lower, 22·7 against 23·9 (printed by mistake 32·9 in para. 9 of last year's review).

General results of mortuary registration as compared with other Provinces.

11. Summing up the general results of the mortuary registration, we find that the rate per thousand for the 804 rural circles was 22·20, while that for the 66 towns shewn separately by Mr. Planck was 32·07 ; that for the 47 Municipalities given by you in your separate memorandum on the subject, printed as an Appendix to this review, being 33·7 ;—total for the Province 22·91 against 22·77 last year. The rates per thousand for the Bombay Presidency for 1872 are,—

Rural circles, ...	... 23·6
Town circles,...	... 28·7
Cantonment circles, ...	... 23·5
Total,	... 24·1

In Madras for the year 1872 the registered deaths only give a ratio of between 15 and 16 per thousand, the death-rate in Municipal towns being 26 per thousand. In the Punjab, again, the death-rate for the Province in 1872 was 24 per thousand, but it had risen to that from 21 per thousand in 1871 in consequence of a great increase in sickness ; for towns of 5,000 and upwards the death-rate was 36 per thousand for males, and 41 per thousand for females. In future reports His Honor thinks it would be well always to compare the Provincial returns both of births and deaths with those of other parts of India. Where our system is shewn to be less efficient than that in force elsewhere, the Sanitary Commissioner should enquire into the causes of our inferiority. We shall thus be able to profit by the experience which has been gained by other Governments, and to get better results by introducing practical improvements into our machinery.

Death-rate amongst children.

12. *Para.* 13.—The omission to notice the deaths among male and female children, as bearing on the subject of infanticide, has been already incidentally touched on. The rate of mortality of male infants under one year is registered as being 104· and of female 92·6 ; total 98·5. It is noticeable that more deaths of male than female infants are reported, the proportion being 54·8 to 45·2. The infanticide returns (para. 13 of Resolution No. 111A., dated 17th April, 1874) give a rate of 51·7 female deaths to 48·3 male deaths under one year, against the English proportions of 43·6 to 53·6.

The total deaths of children are 4·5 per thousand of total population. Deaths in the villages proclaimed under the Infanticide Act during the first half of 1873-74 were at the rate per annum of 10·8 per thousand and in some districts rose to 14·5. In 1872-73 the deaths were 7·8 per

thousand. The English rate may generally be taken to be five to six per thousand of population, so that we may conclude that about 100,000 deaths of infants have not been registered. The difficulty experienced in getting correct registration of infants' deaths is by no means peculiar to these Provinces, but is felt all over India. The experience of the Madras Government, for example, is that the death of a very young infant is a matter of such small importance to the community generally, that unless when a special apparatus exists (as in the proclaimed infanticide villages), correct registration can hardly be looked for.

13. *Para.* 18.—In the commencement of the second chapter, a table is given shewing the principal facts in regard to the meteorology of the year. It is not understood from which source Mr. Planck got his rain-fall returns. According to the table given in the report there was no rain from November 1870 to May 1871. The table in the margin shews the difference between Mr. Planck's figures and those given by the Meteorological reports. In future the revenue or meteorological returns should be adhered to. The figures given in the report are manifestly incorrect.

Rain-fall.

Month.	Sanitary Commissioner's table.			Meteorological Report.		
	Years.			Years.		
	1871.	1872.	1873.	1871.	1872.	1873.
January, ...	...	2·24	0·51	·81	2·24	·32
February, ...	...	0·75	0·31	1·05	·89	·15
March, ...	...	0·37	0·71	·4	·37	·55
April, ...	...	0·54	...	·46	·54	·3
May, ...	...	0·91	1·37	2·56	·99	1·17
June, ...	10·6	4·67	1·39	10·65	4·57	1·29
July, ...	17·3	14·51	14·25	17·24	14·51	14·82
August, ...	11·0	15·07	11·00	12·06	15·06	10·96
September, ...	10·5	6·30	7·91	7·52	6·29	7·91
October, ...	...	...	0·41	...	...	·11
November, ...	...	...	0·16	·6	·4	·2
December, ...	1·0	0·20	0·61	1·22	·20	·36
Totals, ...	50·4	45·56	38·63	54·57	46·10	38·14

14. As regards the health of the past year, the chief features are the unusual heat of the hot weather and the moderation of the rains, and the resulting mortality in the former period and healthiness in the latter. Looking to the comparative prevalence of the principal diseases, the main fact seems to be the great extent to which small-pox prevailed. In 1872 the deaths by fever were more than nine times the deaths by cholera, and more than sixteen times the deaths by small-pox. In the present year, on the other hand, the deaths by fever were thirty times those by cholera, and only four times those by small-pox ; the total number of deaths by fever being 458,352 against 490,436 in 1872. The mortality by fever keeps pretty steady, as one might have expected, one year compared with another : cholera and small-pox again, which come in epidemic outbreaks, shew great variations.

Chief features of the health of the year.

15. *Para.* 35.—Mr. Planck's remark in para. 35, that as a matter of course under our system the deaths registered under the head of fever must greatly exceed those from all other causes, probably means that fever is the head to

Comparative correctness of registration of fever deaths.

which deaths from any cause not very obvious are ascribed by the people. When there is a sudden outbreak of cholera or small-pox, the fact is generally known and the deaths are put down to the right cause ; but in ordinary times any one who dies of any obscure disease, or from old age, is said to have died of fever. This naturally swells the apparent fatality of this disease.

Districts where fever mortality was highest.

16. *Para.* 36.—The districts where mortality from fever was highest are as follows :—

				1872.	1873.
Tarai, ...	...	...	...	28·50	25·36
Meerut,...	...	...	...	30·05	20·46
Bulandshahar,	...	...	...	24·77	20·42
Gorakhpur,	...	...	...	13·26	18·33
Jaunpur,	...	...	...	14·26	18·26
Gházipur,	...	...	...	11·92	18·79
Benares,	...	...	...	13·67	19·30
Mirzapur,	...	...	...	16·66	18·47
Cawnpore,	...	...	...	22·05	17·88
Muzafarnagar	...	...	...	19·59	17·29

The increase in Gorakhpur, Gházipur, Benares, Mirzapur, and Jaunpur is very great ; but doubtless it is due to some extent to improved registration rather than to any real increase in mortality. This is shewn by the increase in the general death-rate in these districts as shewn below :—

				1872.	1873.
Gorakhpur,	...	...	...	18·0	29·69
Jaunpur,	...	...	...	24·11	21·86
Gházipur,	...	...	...	13·93	23·39
Benares,	...	...	...	28·46	26·63
Mirzapur,	...	...	...	23·18	25·95

In three of these districts there has been an increase in the death-rate : but in Jaunpur and Benares, although the fever death-rate is higher, the general death-rate is considerably less than last year.

The effect of Drainage Works on fever mortality.

17. There is every reason to believe that the epidemic of fever, which broke out in the Upper Doab, is passing downwards. Saháranpur, for instance, used to be one of the most fever-stricken districts in these Provinces, and last year the fever death-rate was only 13·77 per thousand (out of a general death-rate of 23·82), which is below the general rate for the Provinces —14·89 per thousand. Muzafarnagar, Meerut, and Bulandshahar are still high, but are below last year. The following table shews the deaths from fever in each Division for the last five years. Meerut, Rohilkhand, and Agra all shew a considerable decrease as compared

with 1871 and 1872 ; Allahabad and Benares, on the other hand, shew an increase, the last a very large one. Fever seems to be becoming more generally prevalent in the lower Divisions :—

Division.	1869.	1870.	1871.	1872.	1873.
Meerut, ...	45,244	77,659	106,363	106,276	84,551
Kumaon, ...	7,106	9,093	12,268	12,099	12,065
Rohilkhand, ...	43,729	46,904	87,154	99,875	67,835
Agra, ...	39,631	62,817	88,868	72,407	65,843
Jhánsi, ...	13,678	10,132	12,486	12,418	13,032
Allahabad, ...	50,972	62,632	42,603	80,003	82,929
Benares, ...	46,478	53,676	72,289	107,358	132,097
Totals, ...	246,838	322,913	422,031	490,436	458,352

Map shewing deaths from cholera.

18. *Para.* 42.—A map in three parts has been sent, shewing the deaths from cholera in the different mortuary circles, but no attempt has been made to carry out the wishes of Government expressed last year, that the Sanitary Commissioner should enter into communication with the Sanitary Officer of Oudh, and should endeavour to trace the progress of disease without break of continuity.

Small-pox.

19. *Para.* 45.—The virulence of small-pox was this year unusually great, the total number of deaths being 97,093 against 30,073 last year, and 38,449 in 1871. Mr. Planck bears testimony to the good done by the Vaccination Department, but as this subject has been treated of in connection with the Vaccination Report, it is unnecessary to refer to it at length here. As to the good which has been effected there can be no doubt, but vaccine operations have as yet touched so small a proportion of the population, that they could not be expected to have any influence on the general death-rate, except indeed in Kumaon and Garhwal, which now enjoy almost perfect immunity from small-pox, from the ravages of which they suffered severely twenty years ago.

Incompleteness of section on sanitary improvements.

20. *Chapter V.*—Mr. Planck has hardly responded to the invitation of the Government of India to enlarge the information given in the section devoted to sanitary improvements during the year. The progress in Municipalities, where it is chiefly to be looked for, is however reported on in the Municipal Administration Report, and this also contains full information as to the money spent.

Birth registration in Municipalities.

21. *Para.* 325.—It would be more convenient in future if the results of the registration of births in Municipalities were treated of in Chapter I. along with those of deaths. During the past year the registration of births has been made imperative in all Municipalities. It is still no doubt very defective, being

30·34 per thousand of population, against a Municipal death-rate of 34·84 ; but at any rate it is a great improvement on last year's returns, which gave a ratio of 22·60 per thousand ; and as Municipal Committees have generally taken trouble with the subject, frequently offering, in many cases with good result, small rewards for verified reports of births, there is every reason to look for improvement in future.

Registration in Cantonments.

22. *Para.* 327.—In accordance with the desire of the Supreme Government, a statement of births, deaths, and marriages recorded in Cantonments during the past year has been appended to the report. In the letter communicating to Mr. Planck the instructions received, it was stated that the Lieutenant-Governor considered that unless Cantonment Committees had the means of obtaining accurate statistics of births, it would be better that attention should be confined to the registration of deaths alone, and, as far as can be seen from the statement submitted, no Cantonment Committees have the means. Birth registration has only been carried out, with any approximation to correctness, at Banda and Agra, and the ratios there are only 23 2 and 24·7 per thousand respectively. Death registration has been carried on in every Cantonment, except Chunar, from which no returns have been received. The death-rate varies from 42·40 per thousand at Gorakhpur to 8·62 per thousand at Moradabad. These statistics should also be dealt with in future, like those of Municipalities, in Chapter I.

Municipal expenditure on sanitary improvement.

23. *Para.* 331.—The Municipal figures given in para. 331 of the report are those of the Budgets of 1874-75, and not, as might be supposed, those of the expenditure of the past year. The actuals of 1873-74 cannot yet be accurately given, as some of the expenditure reports have not been received ; but the following figures, taken from para. 38 of the last General Municipal Administration Report, give the expenditure on sanitary objects during 1871-72 and 1872-73 :—

	1871-72.		1872-73.	
	Expenditure.	Percentage of total expenditure.	Expenditure.	Percentage.
	Rs.		Rs.	
Conservancy, ...	2,51,293	14·10	2,63,849	14·34
Lighting, ...	35,788	2·01	48,990	2·66
Watering, ...	25,624	1·44	27,013	1·47
Original works, ...	4,68,819	26·23	4,67,933	25·43
Repairs, ...	2,06,288	11·59	2,09,804	11·4
Vaccination, ...	6,076	·34	7,960	·43
Dispensary, ...	21,862	1·23	27,373	1·49

These figures are amply sufficient to shew the attention which has been paid to sanitary improvement in the past, and it is not likely that the present year will shew any falling away.

24. *Para* 335.—Nothing more than a catalogue of some of the principal drainage works in progress is given. His Honor considers the subject of drainage in connection with canals to be one of very urgent importance, and would be glad to see fuller information given in respect to it in future reports.

Importance of drainage works.

25. Before concluding, I am to impress on you the importance which the Lieutenant-Governor attaches to the duties of your office in connection with Lock Hospitals. In the Resolution of the Home Department, No. 136, dated 10th September, 1868, it was stated that the Governor-General in Council considered that there was no duty which would more properly fall upon Sanitary Commissioners than that of supervising measures taken for the purpose of guarding European soldiers against the dangers they are exposed to in this direction,—dangers which usually cannot be met by care exercised within the limits of Cantonments alone. You have been already addressed separately on this subject in G. O. No. 154A., dated 17th June, 1874, and have been requested to draw up a note, shewing the present state of things at each Cantonment where a Lock Hospital is kept up, the preventive and detective establishments maintained, and the results which the working of the rules has brought about On the receipt of this note further orders will be issued ; but the Lieutenant-Governor desires me to take this opportunity of saying that this duty of co-operating with the Cantonment authorities in supervising the arrangements connected with Lock Hospitals will in future be looked on by Government as one of the chief functions of the office of Sanitary Commissioner.

Lock Hospitals.

26. In conclusion, I am to convey to Mr. Planck Sir John Strachey's thanks for the services which in this as in former years he has performed in fulfilling the duties of his office.

I have the honor to be,

SIR,

Your most obedient Servant,

C. A. ELLIOTT,

Secretary to Government,

North-Western Provinces.

Nos. 182A-184A.

Para. 7 of this letter and para. 2 of report, forwarded to the Civil Surgeons of Meerut, Bareilly, and Badaon, for the explanation required.

Memorandum on the death-rate and average expectation of life among the male urban population of the North-Western Provinces.

UNTIL within the last year or two it was a reproach against the British Government that it had entirely neglected the collection of vital statistics regarding the native population of this country, but much has been done recently towards wiping away this reproach. In the census of 1872 the people were not only enumerated, but in many places classified by ages; while the recently started mortuary registration is supplying us with figures which are beginning to be of some value.

2. These returns may not be sufficiently accurate, nor extend over a sufficiently long period to enable us to draw general conclusions from them with any considerable degree of certainty; but at any rate we can extract from them some thing better than the wild guesses which at present only serve to show our entire ignorance of the subject.

3. A life table, with some slight pretensions to accuracy, may be, I think, of some immediate practical utility. The question of introducing life assurance among the natives of this country is now fairly on the tapis, but it is not to be expected that any careful Insurance Company will take any practical steps in the matter until our knowledge regarding the death-rates prevailing among the people is increased. It is possible that this memo. may to some slight extent meet this want.

4. Mortuary registration in the North-Western Provinces may be divided into two branches—Rural and Municipal. With regard to the first branch, it is admitted on all hands that the returns are so incomplete as to be utterly valueless for the purpose of computing a life table from them. With the Municipal returns it is different. In Municipalities the reporting and registering agencies are stronger and more intelligent. Supervision is stricter, and in some of the head-quarter towns considerable attention has been paid by the District Officers to the subject. On the whole, it may be said that the Municipal mortuary registration has some considerable claims to be considered trustworthy. I have accordingly determined to confine my attention to Municipal returns.

5. I have thought it advisable to prepare the tables for males only on the ground that both our registration returns and our census figures are less accurate for females than for males.

6. I have not been able to include in my calculations the returns of all the Municipalities in these Provinces for the following reasons:—

First,—Municipalities with less than 10,000 inhabitants have been excluded, as the populations of these small towns have not been classified according to ages in the Census Report.

Secondly,—Some few towns have been excluded, on the grounds that their census areas and mortuary registration areas are different.

Thirdly.—The town of Allahabad has been excluded, on the ground that its mortuary registration is very incomplete.

These towns being excluded, we have left the following 19 Municipalities with a total male population of 817,819:—

No.	Town.	Male population.	No.	Town.	Male population.
1	Saharanpur, ...	23,272	26	Kosi, ...	6,568
2	Deoban, ...	10,083	27	Ferozabad, ...	7,395
3	Muzaffarnagar, ...	6,105	28	Mainpuri, ...	11,326
4	Kandla, ...	5,799	29	Etawa, ...	16,344
5	Kairana, ...	9,117	30	Soron, ...	5,881
6	Haupper, ...	7,600	31	Kasganj, ...	8,393
7	Sicandrabad, ...	9,514	32	Mau, ...	8,205
8	Bulandshahar, ...	7,730	33	Kalpi, ...	8,021
9	Khurja, ...	13,770	34	Kunch, ...	7,309
10	Sicandra Rao, ...	6,668	35	Fatihpur, ...	10,297
11	Hatrass, ...	12,718	36	Banda, ...	14,225
12	Bijnaur, ...	7,025	37	Râth, ...	7,094
13	Atrauli, ...	8,239	38	Azimgarh, ...	8,756
14	Chandpur, ...	6,170	39	Chunar, ...	4,989
15	Nagina, ...	9,981	40	Ghazipur, ...	19,582
16	Najibabad, ...	8,964	41	Koel, ...	30,141
17	Amroha, ...	16,910	42	Moradabad, ...	32,804
18	Chandausi, ...	12,706	43	Shahjahanpur, ...	36,215
19	Sambhal, ...	23,391	44	Muttra, ...	30,786
20	Badaun, ...	16,848	45	Agra, ...	79,344
21	Saheswan, ...	8,618	46	Farakhabad, ...	40,156
22	Pillibhit, ...	15,138	47	Mirzapur, ...	34,820
23	Kashipur, ...	6,783	48	Benares, ...	89,763
24	Bindraban, ...	10,602	49	Gorakhpur, ...	27,544
25	Jaleysar, ...	8,110			

7. According to the Census Report the classification of this population according to ages is as follows :—

Under 1.	1 to 6.	6 to 12.	12 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Above 60.	Total.
39,208	97,118	107,681	134,761	168,992	122,842	80,560	43,676	22,981	817,819

Among the same population during the year 1873, in addition to 856 still-births, which, in accordance with English practice, have been excluded from the calculations, 27,600 male deaths were registered. These deaths occurred at the following ages :—

Under 1.	1 to 6.	6 to 12.	12 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Above 60.	Total.
7,370	5,826	1,494	1,122	2,064	1,987	2,206	2,332	3,199	27,600

It is from these figures that I have deduced the death-rates, and the average expectation of life at different ages.

8. It will be obvious that, in addition to some minor sources, these tables will be liable to error from two main sources— .

First,—Inaccuracy of registration. On this I have already spoken. Our registration is undoubtedly still incomplete, but most of the incompleteness is, I believe, due to the non-registration of the deaths of very young children, and it will consequently not affect the calculations for ages beyond childhood, where accuracy is of the most importance. Still, I have no doubt that many deaths occurring among adults go unregistered: consequently the true death-rates will be higher, and the true expectations of life lower, than those given in the tables. I do not think it would answer any good purpose to guess at the probable amount of the error.

9. The second source of error is that the mortuary registration covers a period of one year only. Of course this fact alone is sufficient to prevent any feeling of absolute certainty with regard to the accuracy of the tables; but I do not think that any very serious error has arisen from this cause, as the year 1873 was a normal year, neither particularly healthy nor particularly unhealthy. Besides, it must be remembered that the error from this cause will not be so great as it probably would be in the case of a small population concentrated in a small area.

10. The following table shows the death-rates at the various stages of life for the male population of our North-West municipalities, as compared with the death-rates for males in healthy English districts. The English rates have been calculated from a life-table by Dr. Farr, published in the Thirty-third Annual Report of the Registrar-General for England: —

Death-rate.

Ages.	North-West municipalities.	Healthy English districts.	Difference.
	Per mille.	Per mille.	Per mille.
For whole population, ...	33·7	17·7	16
Under 1, ...	188	112·8	75·2
1 to 6, ...	60	19·3	40·7
6 to 12, ...	13·9	5·5	8·4
12 to 20, ...	8·4	4·7	3·7
20 to 30, ...	12·2	7·8	4·4
30 to 40, ...	16·2	8·6	7·6
40 to 50, ...	27·4	10·6	16·8
50 to 60, ...	53·4	16·3	37·1
Above 60, ...	139·2	64·7	74·5

11. It appears from this table that if we take two bodies of 1,000 each, one of natives of this country and the other of Englishmen, all being in youth or early manhood, at the end of a year almost as many natives will survive as Englishmen. If, however, the bodies consisted of infants or old men, the surviving natives would number only about eight-ninths of the surviving Englishmen. In early manhood a native has almost as good a chance of living till the end of a year as an Englishman, but in infancy and old age his chance is much less. To speculate the causes of this difference is beyond the scope of this memo.

12. The following table shows the average expectation of life at various ages for the male population of our North-West towns as contrasted with the expectation at the same ages for the male population of healthy English districts :—

Expectation of Life.

Ages.	North-West municipalities.	Healthy English districts.
	Years.	Years.
At birth, ...	29·7	48·6
1, ...	39	54
6, ...	47·3	54·2
12, ...	44·4	49
20, ...	37·2	43·4
30, ...	27·8	36·5
40, ...	19	29·3
50, ...	12	22
60, ...	7·2	15

13. So great are the dangers of infancy in India that, if a child gets over the first six years of life, his expectation of life has improved by 17·6 years. With an English child in a healthy district the improvement is only 5·6 years. In early manhood the premium payable by a native on a life insurance policy would be but little higher than that payable by an Englishman. With increasing age, however, the premium payable by natives would increase far more rapidly than that payable by Englishmen; and if a native postpones insurance till what we should call middle age, he will find that his annual premium will be twice as high as that payable by an Englishman of the same age.

14. It will of course be understood that these figures are for the entire population. It is probable that for the well-to-do classes, who alone would be likely to insure, the death-rates are more favourable; but there are no returns relating to these classes only which would enable us to speak with certainty on the subject.

G. E. LOW,
Offg. Sanitary Commissioner,
North-Western Provinces.

ALLAHABAD:
The 5th June, 1874.

SEVENTH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER

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NORTH-WESTERN PROVINCES

YEAR 1874.

ALLAHABAD:
NORTH-WESTERN PROVINCES GOVERNMENT PRESS.
1875.

MAP
of the
NORTH-WESTERN PROVINCES,
Shaded portion denotes area of Cholera prevalence in 1874.
Scale 40 Miles to 1 Inch.
NEPAL
OUDH
RAJPUTANA
BUNDELA
REWA TERRITORY
GWALIOR TERRITORY
HARIANA
DELHI
MEERUT
AGRA
ALLAHABAD
BENARES
GORAKHPUR
FYZABAD
SULTANPUR
BAHRAICH
SITAPUR
LUCKNOW
CAWNPORE
ETAWAH
MAINPURI
FARUKHABAD
BAREILLY
MORADABAD
SHAHJAHANPUR
MUTTRA
ALIGARH
ETAWAH
JHANSI
BANDA
NAINI TAL
ALMORA
SRINAGAR
BIJNOR
MUZAFFARNAGAR
KHERI
GONDA
BASTI
GHAZIPUR
JAUNPUR
MIRZAPUR
SAGAR
NARSINGHPUR
JABALPUR
MANDLA
SEONI
BALAGHAT
CHHINDWARA
HOSHANGABAD
BETUL
NARBADA
SATPURA RANGE
VINDHYAN RANGE
GANGES
JUMNA
SON
GOGRA
RAPTI
GUMTI
GHAGRA
KALI NADI
RAMGANGA
KOSI
BETWA
KEN
TONS
SARDA
PANJNAD
CHAMBAL
SINDH
PARBATI
KUNO
PAHUJ
SIND
DHOLPUR
KOTA
BHARTPUR
ALWAR
DELHI
PATIALA
JIND
NABHA
KAITHAL
LOHARU
RAJGARH
KHERA
SIRSA
HISSAR
RHOTAK
GURGAON
MEWAT
MUTTRA
AGRA
ETAWAH
MAINPURI
ETAH
ALIGARH
BULANDSHAHR
MEERUT
MUZAFFARNAGAR
SAHARANPUR
BIJNOR
MORADABAD
RAMPUR
BAREILLY
PILIBHIT
SHAHJAHANPUR
KHERI
SITAPUR
HARDOI
UNAO
RAE BARELI
FATEHPUR
BANDA
JHANSI
JALAUN
GWALIOR
DHOLPUR
KOTA
BHARTPUR
ALWAR
DELHI
PATIALA
JIND
NABHA
KAITHAL
LOHARU
RAJGARH
KHERA
SIRSA
HISSAR
RHOTAK
GURGAON
MEWAT

TABLE OF CONTENTS.

CHAPTER I.

	Page.
Mortuary Registration of 1874,... ...	1
Attention given by the Police clerks concerned in the Mortuary Registration, ...	*ib.*
Change of system in the Registration of age at death, ...	*ib.*
Record of deaths entered under the comprehensive heading of other causes, ...	2
Value of life in Europe in comparison to the value of life in India, ...	*ib.*
Neglect of registration in certain centres of population in the North-Western Provinces,...	2-3
Registration in Towns is more perfect than Rural circles, ...	4
Registration of deaths in 81 Municipal Towns,	*ib.*
Prevalence of Fever in certain Municipalities, ...	4
Ratio of deaths in comparison with those of other parts of India, ...	*ib.*
Class of those who died, ...	5
Age of those who died, ...	*ib.*
Sex of those who died, ...	*ib.*
Incorrect birth registration of 1874, in the Municipalities, ...	6
Registration of births and deaths in the Municipalities, ...	*ib.*
Evident neglect of registration in 7 Municipalities, ...	7
Concerning Mortuary registration within the limits of Cantonments, ...	7-8

CHAPTER II.

General statement of mortality in the North-Western Provinces, from all causes, ...	9
History of mortality and chief diseases, ...	11
Relative mortality of the Cold Hot and Rainy seasons, ...	*ib.*
Deaths from Zymotic causes according to season,...	12
Deaths from Fever in 1874, and the names of the districts in which it was greatest, ...	*ib.*
Deaths from Fever in certain Duab circles of the Bulandshahr district, ...	12-13
Excessive Fever mortality due to increase of moisture, ...	13
Evidence in regard to Khurja, Bulandshahr and Gulaothi regarding the above, ...	13-14
Concerning map showing the mortuary circles of the Duab,...	14-15
Testimony of the Superintendent of Stud at Babugarh regarding the excessive fever mortality due to increase of moisture, ...	15
Concerning Dr. Moir's opinion regarding the above, ...	*ib.*
Concerning Captain Willcock's notes on the above subject and his proposal that *flush* irrigation should be converted into *lift* irrigation everywhere, ...	16
Concerning the prevalence of Fever disease in the Duab places than others, ...	17
Improved drainage of Saharanpur and Muzaffarnagar and surplus water of irrigation falling in naddis, ...	18
Deaths from Cholera, ...	19
Table illustrating the year in which Cholera prevailed, ...	*ib.*
Gorakhpur, Basti and other eastern districts present themselves as the home of cholera in the North-Western Provinces, ...	20
Cholera map of the Basti and Gorakhpur with table underneath, ...	*ib.*
Monthly Cholera table for 1874, ...	21
Advantage of Vaccination, ...	*ib.*
Deaths from Small-pox illustrating year in which it was prevalent, ...	22
Prevalence of Small-pox in Rohilkhand and its map showing distribution of the mortality, ...	*ib.*
Mortality from Bowel Complaint, ...	23
Injuries and accidents recorded in greatest number in certain districts of the North-Western Provinces, ...	23-24

CHAPTER III.

Meteorology of the year with Statement I.,	25-26
Statement of rain-fall in 1874, ...	27
General condition of the people with tables III. and IV., showing price of grains in the Province and Districts respectively, ...	28
High price of all kinds of food in the Basti and Gorakhpur districts, ...	29

CHAPTER IV.

Inspection of Sanitary Commissioner in the Duab places and some of those in Rohilkhand,...	30
Report on the town of Cawnpore, ...	*ib.*
" " Etawah,... ...	*ib.*
" " Agra, ...	31
" " Aligarh, ...	*ib.*
" " Khurja, ...	31-32
" " Bulandshahr, ...	33
" " Gulaothi, ...	*ib.*
" " Bhutona (a large village,)	34
" " Hapur, ...	*ib.*
" " Meerut, ...	*ib.*
Report on the town of Pilkhuwa, ...	34
" " Khera (a large village,) ...	35
" " Sardhana, ...	*ib.*
" " Bhainsi, ...	36
" " Muzaffarnagar, ...	*ib.*
" " Deoband, ...	*ib.*
" " Saharanpur, ...	37
" " Dehra Dun, ...	*ib.*
" " Bijnor, ...	38
" " Moradabad, ...	39
" " Bareilly, ...	*ib.*
" " Jalalabad, ...	40
" " Farukhabad, ...	40

CHAPTER V.

Sanitary improvements during the year, ...	41	Details of sanitary improvements effected in the Towns of the Kumaun Division,...			54
Conference of Officers of several Departments held at Meerut for discussing the question of the prevalence of Fever in the Meerut and Bulandshahr Districts, ...	*ib.*	,, ,,	Rohilkhand Division,		54 & 55
		,, ,,	Meerut	,,	55 & 56
		,, ,,	Agra	,,	57
Resolution by His Honor regarding the above,	41-52	,, ,,	Allahabad	,,	58
Certain opinions by the Sanitary Commissioner on the above subject, ...	52	,, ,,	Benares	,,	*ib.*
		,, ,,	Jhansi	,,	58 & 59
List of 55 Municipal Towns which have sent statements of sanitary improvements effected in them, ...	53				

APPENDICES.

				Page.
Report on Fever in the Meerut district by Dr. W. Moir, Civil Surgeon, Meerut, (Appendix I.,)				i to xv.
Report on evils resulting from Canal Irrigation by W. Willcocks, (Appendix II.,) ...				xvi & xvii.
Appendix A., Annual Form No.	I.,	Deaths registered in different districts of the North-Western Provinces, during the year 1874,		xviii & xix.
Ditto B.,	ditto	II.,	Deaths registered in the Rural Circles and Towns of the North-Western Provinces, during each month of the year 1874, ...	xx to xxix.
Ditto C.,	ditto	III.,	Deaths registered from different causes in the North-Western Provinces, during the year 1874,	xxx to xlv.
Ditto D.,	ditto	IV.,	Deaths registered according to Age in the North-Western Provinces, during the year 1874, ...	xlvi to l.
Ditto E.,	ditto	V.,	Deaths registered according to Classes in the North-Western Provinces, during the year 1874,	li to lv.
Ditto F.,	ditto	VI.,	Deaths registered from Cholera in the N.-W. Provinces, during each month of the year 1874,	lvi to lxiii.
Ditto G.,	ditto	VII.,	Deaths registered from Small-pox in the N.-W. Provinces, during each month of the year 1874,	lxiv to lxxi.
Ditto H.,	ditto	VIII.,	Deaths registered from Fevers in the N.-W. Provinces, during each month of the year 1874,	lxxii to lxxix.
Ditto I.,	ditto	IX.,	Deaths registered from Bowel Complaints in the N.-W. P., during each month of the year 1874,	lxxx to lxxxvii.
Ditto J.,	ditto	X.,	Births and Deaths registered in the Municipalities in the North-Western Provinces, during 1874,	lxxxviii to xci.
Ditto K.,	ditto	XI.,	Deaths registered in the Cantonments of the North-Western Provinces, during 1874, ...	xcii & xciii

1874.

SEVENTH ANNUAL REPORT OF THE SANITARY COMMISSIONER OF THE NORTH-WESTERN PROVINCES.

CHAPTER I.

MORTUARY STATISTICS.

During the year 1874 mortuary registration continued to be effected by the agency of the police upon the system established in 1870. And although, as must ever, I think, be the case so long as the registration is based on the reports of the village and town watchmen, the results do not express the truth, they are, I think, reliable enough to indicate with certainty the locality of excessive disease and other facts of wide import likely to be of value towards the better government of the country. Their scientific value is, I think, almost nothing; a very deplorable statement to have to make, because if they could but be made correct in all essential points of the registration, they would record a yearly history of the condition of the people everywhere which would provide a sure foundation upon which to base our efforts for improvement. If only the number of those who die and their age at death could be accurately determined, the result in a few years time would acquire a value and importance in regard to our knowledge of the people and their actual condition such as never has been approached before.

2. Nothing short of separate registration in every village or group of villages can effect this important aim; and not even then, until the head of the family is obliged to report a death in person.

3. During the past cold season I have inspected the mortuary registers in many circles of the Duab and in some circles of Rohilkhand, and only in one instance was I able to discover any serious mistake. This consisted of a neglect in addition, by which the deaths, some 20 in all, registered on the first two pages of the monthly register had not been added to the total for the month. As a rule, certainly the registers are carefully and accurately kept, and the returns are faithful copies of the register. The police clerks perform their part in the work admirably, I think. But undoubtedly the deaths in many villages of many circles are not recorded at all during some months; for it is a common circumstance to find deaths recorded as having happened in perhaps only one-third of the villages of a given circle, and this for months together. The average number of villages in every rural circle is considerably more than a hundred, and I think it is not possible to attain to anything like accuracy of registration whilst the deaths of so many centres of population are registered at one place.

4. The only important change introduced into our system of registration during the past year has been in the record of age at death. And now, instead of the record of age at death at ten separate periods, the record takes count only of deaths of infants, children, adults, and old people. This is a very sensible change, and will result in a near approach to truthful record in regard to the period of life at which death occurred amongst those whose deaths were registered.

I think all changes which tend to simplification of form, even to the limit of bringing all we ask in this matter of mortuary registration down to the level of native understanding, are steps in the right direction.

5. Principally we ought to know three facts accurately. The place of death, the number of deaths, and the period of life at death. And these three facts can be known, I believe, without extraordinary difficulty whenever the Government shall be determined to know them and shall provide the necessary means.

We wish to know the cause of death, but must rest contented with the reputed cause for many years to come. Though I believe if the record of the three principal facts above mentioned was accurately attained to and established beyond dispute, the record of cause of death could be much improved, especially in regard to deaths now entered under the comprehensive heading of "other causes." For I have noticed at inspections of mortuary registers that some of the Registrars enter the name of the disease from which death occurred as a note to an entry under that heading, and I think deaths from such diseases as consumption, carbuncle, leprosy, sun-stroke, and some other causes well known and distinctively named by the people, might be accurately recorded.

6. The total number of deaths registered during 1874 was 672,259 in a population of 30,769,056. The resulting value of life in the province as computable from these figures is 45·7 years, and this result, as compared with the value of life in Europe, about 35 years, shows at a glance how far from accuracy our registration yet is. If Mr. Plowden's estimate of the value of life in India, 30 years and 8 months, is correct, it follows that about one-third of the deaths which must have happened in 1874 have remained unrecorded.

7. The annual results show that in the nine districts—Tarai, Shahjahanpur, Meerut, Bulandshahr, Mainpuri, Etawah, Cawnpore, Gorakhpur, and Jalaun, with a total population of 9,124,789—the total of deaths registered in 1874 was 256,756, showing an average life value of 35 years amongst the people of those districts.

In the twelve districts—Bijnor, Moradabad, Budaun, Muzaffarnagar, Aligarh, Etah, Mainpuri, Hamirpur, Banda, Ghazipur, Mirzapur, and Lalitpur, with a total population of 9,826,159—the total of deaths registered during the year was 212,472, showing an average life value of 46 years amongst the people of those districts.

In the thirteen districts—Kumaun, Garhwal, Bareilly, Dehra Dun, Saharanpur, Muttra, Farukhabad, Agra, Fatehpur, Jaunpur, Allahabad, Benares, and Jhansi, with a total population of 10,345,114—the total of deaths registered during the year was 183,556, showing a life value of 56 years amongst the people of those districts, and it seems probable that nearly one-half of the deaths which occurred in those districts remained unregistered.

In one district, Basti, with a population of 1,472,994, the total of deaths registered was 19,475, showing a life value of 75 years amongst the people of that district, and it seems probable that about three-fifths of the deaths which occurred in that district remained unregistered.

8. The reason, then, of our failure to attain to a correct knowledge, even of the number of persons who died during the past year, was due in greatest measure to neglect of registration in the fourteen districts last mentioned.

9. Perhaps it may serve some good purpose if I point out where in some of the districts in question the registration must have been much neglected.

10. In the BAREILLY district, in the rural circle of *Faridpur*, with a population of 69,190, the total of deaths registered during the year was 943, which, if a correct average of all years, would show a life value of 73 years amongst the people of that circle. In *Bilsanda* rural circle, of the same district, with a population of 39,777, the total of deaths registered was 750, showing a life value of 53 years.

11. In the DEHRA DUN district, in the rural circle of *Kalsi*, with a population of 36,639, the total of deaths registered was 428, showing a life value of 148 years; in the *Mussooree* circle, with a population of 15,886, the total of deaths registered was 201, showing a life value of 157 years; in the *Dehra* circle, with a population of 14,195, a total of 244 deaths were recorded, equal to a life value of 58; and in the *Rajpur* circle, with a population of 7,501, a total of 136 deaths were recorded, equal to a life value of 55 years.

12. In the MUTTRA district, in the rural circle of *Baldeo*, with a population of 74,761, the deaths recorded were 974, the resulting life value 77 years; in the rural circle of *Raya*, with a population of 55,685, the deaths were 827, equal to a life value of 67 years; in *Jeyt* rural circle, population 22,985, the deaths registered were 381, the resulting life value 60 years.

13. In the FARUKHABAD district we have *Miran-ki-Sarai* rural circle, population 67,593, deaths registered 873, expectation of life 77 years; the *Saurikh* rural circle, population 64,812, deaths 976, expectation of life 66 years; the *Kampil* rural circle, population 43,908, deaths 661, expectation of life 66 years.

14. In the AGRA district we have the rural circle of *Kachora*, population 47,643, deaths 302, expectation of life 157 years; the rural circle of *Panahat*, population 36,258, deaths 283, expectation of life 128 years; the rural circle of *Achnera*, population 47,643, expectation of life 89 years; *Bah* rural circle, population 28,587, deaths 497, expectation of life 57 years.

15. In the FATEHPUR district we have the rural circle of *Husainganj*, population 50,973, deaths 662, expectation of life 77 years; the rural circle of *Malwa*, population 37,155, deaths 492, expectation of life 75 years; the rural circle of *Ghazipur*, population 49,145, deaths 714, expectation of life 68 years.

16. In the JAUNPUR district we have the rural circle of *Rampur*, population 70,484, deaths 781, expectation of life 90 years; the rural circle of *Jaunpur*, population 141,348, deaths 1,868, expectation of life 76 years; the rural circle of *Mariahu*, population 82,395, deaths 1,254, expectation of life 65 years.

17. In the ALLAHABAD district we have the rural circle of *Soraon*, population 65,769, deaths 748, expectation of life 88 years; the rural circle of *Mejah*, population 39,245, deaths 475, expectation of life 82 years; the *Allahabad* municipal circle, population 145,864, deaths 1,649, expectation of life 87 years; the rural circle of *Mau Aima*, population 50,090, deaths 819, expectation of life 61 years.

18. In the BENARES district we have the rural circle of *Cholapur*, population 53,880, deaths 425, expectation of life 126 years; the rural circle of *Phulpur*, population 44,395, deaths 580, expectation of life 76 years; the rural circle of *Syadraja*, population 48,681, deaths 663, expectation of life 73 years.

19. In the JHANSI district we have the rural circle of *Garotha*, population 22,676, deaths 226, expectation of life 100 years; the rural circle of *Pandwaha*, population 22,462, deaths 237, expectation of life 95 years; the rural circle of *Auldan*, population 12,927, deaths 153, expectation of life 84 years.

20. In the BASTI district we have the rural circle of *Dumariaganj*, population 97,312, deaths 649, expectation of life 150 years; the rural circle of *Gaighat*, population 78,913, deaths 812, expectation of life 97 years; the rural circle of *Captainganj*, population 95,935, deaths 990, expectation of life 94 years; and in like manner in other circles of this district, in which mortuary registration must have been much neglected, to the great detriment of the provincial statement as a whole.

21. The figures and results quoted above will afford ample proof of the absolute absurdity of the registration as now effected. Searching through all my list of 879 circles, I find many more in which the figures provide equally absurd results, and it is

right I should record my opinion here that as yet mortuary registration in this Province is thoroughly effected in very few of the circles, if in any. The cause of this is that the deaths which occur are not reported. The machinery in existence for the registration could produce reliable results, but until measures are taken to ensure the reports of deaths, upon which success entirely depends, the resulting annual figures will continue to vex the compiler, while they provide very little of truth, or light, or guidance to the Government, the public, or such thoughtful men as would know best how to utilize the information they might contain.

22. I have stated that the result of the registration shows an expectation of life of 45·7 years for the whole province.

For the town and rural circles separately, the results may be worthy of consideration, for I think it is true that the registration is effected more perfectly in the towns.

During 1874 in the 813 rural circles with a population of 28,605,214, the total of deaths registered was 611,870, giving a ratio of 21·39 per 1,000, and showing an expectation of life of 46·7 years. In the 66 town circles, with a population of 2,163,842, the total of deaths registered was 60,389, giving a ratio of 27·90 per 1,000 and showing an expectation of life of 35·83 years.

Selecting from the list of deaths in 61 municipal towns (No. 10 in the Appendix) 33 towns with a total population of 642,566, I find the total of deaths registered therein 27,585, which gives a ratio of 42·96 per 1,000, and shows an expectation of life of 23·3 years. Selecting again a group of eight towns—Meerut, Bagpat, Hapur, Pilkhuwa, Bulandshahr, Sikandarabad, Khurja, and Hathras—all situated in the same country about the centre of the Duab, and having a total population of 170,759, I find the total deaths registered therein 10,872, which gives a ratio of 63·66 per 1,000 and shows an expectation of life of 15·7 years.

23. These last figures are noteworthy. The towns in question are the principal centres of population in a part of the province in which fever disease has been very prevalent and fatal during the past year, and I believe—having visited these places and inspected the mortuary registers—that the registration does fairly record the mortality which has actually occurred.

As I have to consider this subject in the third chapter of this report, it is sufficient here to call attention to the record as it stands in the mortuary papers.

24. Considering the provincial mortuary returns with those of other parts of India, I find the following figures for comparison:—

Province.	*Death ratios per* 1,000 *of population.*					
	1873.			1874.		
	Rural circles.	Town circles.	Cantonment circles.	Rural circles.	Town circles.	Cantonment circles.
Bombay, ...	16·92	23·39	20·25	...	...	...
Madras, ...	16·70	27·70	...	...	...	...
Punjab, ...	19·0	32·0	...	...	...	...
North-West Provinces,	...	...	...	21·41	27·72	18·25

Judged by these figures, I think mortuary registration in this province is as well effected as in any other part of India.

Class of those who died.

25. The following table shows the deaths and ratios recorded during the past year as having happened amongst the Hindus, Muhammadans, and Native Christians :—

Class.	Population in 1872.	Deaths registered.	Deaths to 1,000 living.	Value of life in years.
Hindus, ...	26,569,068	582,824	21·9	45·6
Muhammadans, ...	4,189,348	89,243	21·3	46·8
Native Christians, ...	10,640	192	18 1	55·0

And it seems probable that, as regards class, the registration was carefully effected. Of course it is certain that many Native Christians must have died whose deaths were not registered at all.

Age of those who died.

26. The following statement shows the deaths and ratios recorded during the past year at the different periods of life involved :—

Period of life.	*Population in* 1872.			*Deaths registered.*			*Deaths to* 1,000 *living.*		
	Male.	Female.	Total.	Male.	Female.	Total.	M.	F.	T.
Infants (less than 1 year),	734,787	679,338	1,414,125	80,407	67,370	147,777	109·5	99·2	104 3
Children (1 to 12), ...	4,850,923	3,970,931	8,821,854	94,571	73,708	168,279	19·5	19·1	19·3
Adults (12 to 40), ...	8,188,671	7,238,757	15,427,428	83,341	68,371	151,712	10·2	9·4	9·8
Old people (above 40), ...	2,628,482	2,472,658	5,101,140	112,951	91,540	204,491	42·9	37·0	39·9
Total, ...	16,402,863	14,361,684	30,764,547*	371,270	300,989	672,259	22·62	20·95	21·84

27. The recorded deaths of infants witnesses emphatically to the great infantile mortality in India. The ratios show that rather more than ten per cent. of the infant population dies within the year. Small-pox, from which 93,247 deaths were registered in 1874, is doubtless the greatest cause of this lamentable mortality.

The table for England and Wales of average of deaths at the different ages for 34 years shows that of infants 67·6 per 1,000 die within 5 years; of children from 5 to 15 years, 6·70 per 1,000 ; adults from 15 to 45 years, 13·0 per 1,000; old people from 45 to 75 years, 53·57 per 1,000. A comparison of results witnesses to very great excess of mortality in this province during the periods of infancy and childhood.

The sex of those who died.

28. In 1874 the deaths of 371,270 males and 300,989 females were registered, being an excess of males over females of 70,281. An excess of male deaths was recorded at all ages, as the following table shows :—

Period of life.	*Deaths registered in* 1874.			Excess per 1,000 of the population at each age.
	Male.	Female.	Excess male.	
Infants, ...	80,407	67,370	13.037	10·3
Boys and girls, ...	94,571	73,708	20,863	0·4
Adults, ...	83,341	68 371	14,970	0 8
Old people, ...	112,951	91,540	21,411	5·9
Total, ...	371,270	300,989	70,281	1·67

* This total is less than the total of the population by 4,509, as details of age for that number of persons were omitted in the census returns.

29. I think it is certain, as the result of the registration of the past five years, that more males than females die. And if this excess of male deaths is true of many years past, it follows that the female population should be in excess of the male; but the existing male population exceeds the female by 2,046,610. The result can be due only to the fact that more males than females are born here, as in Europe. In England and Wales the excess of male births over female is 40 per 1,000 of all births; in other words, 104 boys are born to 100 girls.

As yet we have very little reliable information on this subject as concerns this province. The confessedly incorrect birth registration of the past year in the municipalities has produced the following results:—

Population of 81 municipalities.	*Births registered in* 1874.		Total births.	Excess boys.
	Boys.	Girls.		
2,236,844	39,317	32,079	71,396	7,238

and the figures show, in round numbers, that 110 boys were born to 100 girls.

Altogether I think it seems likely the birth registration, as it improves, will show that a very considerable preponderance of male births does occur. And if this is proved, it will account for the preponderance of male over female deaths, which has been recorded in all years of our registration hitherto.

30. Perhaps it may be true that a greater ratio of female than male deaths remain unrecorded, as the result of prejudice, especially on the part of the Muhammadan population, or many female deaths may occur as the result of infanticide amongst the Hindu people which are not recorded. But the mortuary figures will not bear any superstructure of theory or consideration, because of their great taint of incorrectness. It is for this reason that hitherto I have never ventured to write at length concerning them, and I extend my writing a little in this direction now in obedience to the orders of Government contained in the remarks on my report of last year.

I do not say, as some have apparently desired, that our endeavours in this direction should cease and the figures we have collected be swept away to a proper resting-place for everything untrue, because I think the existing system and results are paving the way slowly to a true record—a good and how welcome record to me I need scarcely say, after years of weary compilation leading to so little.

Registration in the Municipalities.

31. The results of the birth and death registration in the 81 municipal towns during the past year witness to a pretty general increase of attention to this important matter in the towns concerned.

In my previous annual reports I have not remarked in this chapter upon the subject of birth registration because of the great incorrectness of the returns received, the record of deaths having been greater than the record of births in almost all the towns.

The annual statement No. X. will be found in the appendix, and it may be seen from it that the results of the past year's registration are more worthy of consideration.

32. The population of the 81 municipal towns is 2,236,844, and 71,396 births and 62,920 deaths were recorded as happening within their limits. The resulting ratios are 31·91 births and 28·12 deaths per 1,000 of population.

The average ratios for England and Wales are 34·20 births and 22·40 deaths per 1,000 of population.

I do not think it can be possible that the ratios of the two countries should differ so greatly. In regard to the municipalities of the North-Western Provinces, the deaths registered show a life value of 35·5 years amongst the population, which is not unlikely to be near the truth. It seems most probable therefore that the apparent error is due to a neglect of the registration of births.

33. Viewed as a whole, indeed, the figures cannot but mislead, because of the very evident neglect of registration in seven of the municipalities concerned, as will appear in the following statement :—

No. in Form X.	Municipality.	Population.	Births registered.	Deaths registered.	*Ratio per* 1,000.	
					Births.	Deaths.
7	Nagina, ...	19,696	514	277	26·0	14·0
15	Pilibhit, ...	29,840	697	559	23·3	18·7
23	Dehra, ...	15,971	244	246	15·2	15·4
64	Cawnpore, ...	98,476	1,825	2,381	18·5	24·1
65	Fatehpur, ...	19,064	375	358	19·6	18·7
68	Allahabad, ...	145,864	1,946	1,649	13·3	11·3
70	Azamgarh, ...	15,980	346	437	21·6	27·3
	Total, ...	344,891	5,947	5,707	17·2	16·5

The evidences of neglected registration are apparent enough in all the municipalities of this list, but Allahabad and Cawnpore are especially noticeable as municipalities in which this matter is neglected. Their populations are large, and neglect of registration in them seriously injures the general result.

34. Setting aside the figures relating to these seven municipalities, the figures for the remaining 74 would be, population 1,891,953, births registered 65,451, deaths registered 56,221, and the respective ratios 34·6 and 29·7 per 1,000.

I have no standard of comparison for the birth-rate, excepting the English ratio above given, and comparison with that goes to prove that the births are very much understated.

The death-rate shows an expectation of life of 33·6 years, which is probably quite near to the truth.

35. Concerning this question of registration within the limits of municipalities, I wish to say I have long held the opinion that the truth in regard to the death-rate amongst the people of this province could be learnt with a very great degree of exactness by an earnest endeavour to achieve the mortuary registration within these limits. To this end, it is essential that the monthly return should be in a printed form, showing the population and deaths in each mohalla or quarter separately, and should come to me, as provincial mortuary registrar, in that form, so that any quite untrue results might meet with speedy recognition, and the quarter of the town in which neglect was prevalent might be pointed out.

The population of these municipalities is sufficiently numerous, being upwards of two millions, to permit of the application of the results obtained to the total population of the province without fear of any great error resulting.

36. Concerning mortuary registration within the limits of *Cantonments*, the results for the year will be found in Form XI. of the Appendix.

The ratio of deaths to population witness to a careful registration only in the Cantonments of Landour, Roorkee, Meerut, Fatehgarh, Muttra, and Gorakhpur. In these six Cantonments, with a total population of 36,179, the total deaths registered were 1,111, showing a ratio of 30·7 per 1,000, which is in all probability very near to the truth in regard to this matter.

In the remaining 15 Cantonments, with a total population of 95,536, the total number of deaths registered was 1,293, showing a ratio of 13·5 per 1,000, which can by no possibility approach to the truth.

And it appears that in regard to mortuary registration the Cantonments of the province as yet show scarcely such good results as the mortuary circles of the general population. I think this ought not to be, as the areas concerned are small, the control over the inhabitants complete, and the reporting agency good. But I have reason to fear that the deaths amongst domestic servants, who form an important section of the cantonment community, are not registered with any amount of certainty or regularity.

1. Number	2. Districts	3. Population according to Census of 1871	4. Cases	5. Cholera	6. Smallpox	7. Fevers	8. Bowel complaints	9. Dysentery	10. Diarrhœa	11. Ascites	12. Total Mortality	13. All other Causes	14. Total Deaths from all Causes	15. Ages and sexes of Deaths: Infancy	Boys and Girls	Adults	Old people	16. Ages and Sexes of Deaths from Cholera	Smallpox	Fevers	Bowel complaints	Dysentery	Diarrhœa	Ascites	All other Causes	Total all Causes
1	Kamrup	376,148	871,792	428,644	4,782	2	2,412	—	—	1	12	1,782	1,277	3,061	744	1,816	14	26	40	67	2,214	4,281	6,495	2,659	2,836	6,495
2	Nowgong	162,744	374,200	182,456	2,000	4	2,004	—	—	26	11	2,041	1,963	4,004	987	2,167	24	30	54	84	1,734	3,971	5,705	1,777	1,928	5,705
3	Darrang	78,276	93,470	108,747	2,750	2,750	—	—	—	13	220	2,983	2,763	5,746	1,284	2,983	31	48	79	124	1,284	2,983	4,267	1,479	1,479	4,267
4	Sibsagar	324,360	747,228	727,228	9,000	9	10,000	10	10	24	1,000	4,000	4,000	8,000	2,000	4,000	48	72	120	167	4,000	8,000	12,000	4,000	4,000	12,000
5	Lakhimpur	204,270	470,121	1,122,121	12,000	7,000	12,000	8	8	24	1,000	4,000	3,000	7,000	1,000	3,000	40	60	100	167	3,000	7,000	10,000	3,000	3,000	10,000
6	Goalpara	184,911	1,016,351	1,016,351	6,000	6,000	10,000	10	10	24	1,000	4,000	3,000	7,000	1,000	3,000	40	60	100	167	3,000	7,000	10,000	3,000	3,000	10,000
7	Maimansingh	371,126	743,251	743,251	8,000	8,000	12,000	12	12	24	1,000	4,000	3,000	7,000	1,000	3,000	40	60	100	167	3,000	7,000	10,000	3,000	3,000	10,000
8	Rungpur	876,000	1,752,000	1,752,000	20,000	20,000	30,000	30	30	72	3,000	12,000	9,000	21,000	3,000	9,000	120	180	300	500	9,000	21,000	30,000	9,000	9,000	30,000
9	Dinajpur	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
10	Bogra	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
11	Pabna	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
12	Rajshahi	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
13	Dacca	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
14	Furreedpur	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
15	Backergunge	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
16	Jessore	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
17	Nuddea	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
18	Moorshedabad	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
19	Hooghly	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
20	Howrah	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
21	Calcutta	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
22	24-Pergunnahs	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
23	Midnapore	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
24	Hazaribagh	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
25	Lohardugga	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
26	Manbhoom	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
27	Singbhoom	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
28	Chittagong	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
29	Noakhally	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
30	Tipperah	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
31	Chittagong	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
32	Arracan	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
33	Akyab	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
34	Ramree	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
35	Sandoway	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
36	Tharawaddy	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
37	Prome	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
38	Henzada	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
39	Thayetmyo	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
40	Amherst	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
41	Tavoy	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
42	Mergui	1,000,000	2,000,000	2,000,000	23,000	23,000	34,500	34	34	82	3,450	13,800	10,350	24,150	3,450	10,350	138	207	345	575	10,350	24,150	34,500	10,350	10,350	34,500
43	Total	18,000,000	36,000,000	36,000,000	414,000	414,000	621,000	621	621	1,476	62,100	248,400	186,300	434,700	62,100	186,300	2,484	3,726	6,210	10,350	186,300	434,700	621,000	186,300	186,300	621,000

CHAPTER II.

HISTORY OF MORTALITY AND CHIEF DISEASES.

TABLE I.

37. *Table of mortality for the ten years, 1865 to 1874.*

Year.	Population.	Deaths.			Deaths in 1,000 living.	Average of life in years.
		Male.	Female.	Total.		
1865, ...	29,405,322	335,359	239,774	575,133	19·5	51
1866, ...		193,144	136,932	330,076	11·2	89
1867, ...		212,461	155,449	367,910	12·5	80
1868, ...	29,588,653	186,312	133,574	319,886	10·8	92
1869, ...		303,921	225,832	529,753	17·9	56
1870, ...		...	...	480,378	16·2	63
1871, ...		332,357	256,293	578,650	19·5	51
1872, ...	30,884,022	393,564	309,684	703,348	22·7	44
1873, ...	30,769,056	394,376	310,548	704,924	22·9	43
1874, ...		371,270	300,989	672,259	21·8	45

The table shows that during the past year mortuary registration, although less perfectly effected than in the two preceding years, was effected with a fair amount of attention. In some districts the registration, as I have pointed out in Chapter I., was probably thoroughly well effected, and the failure seen in the results for the whole province was due to neglect of registration in comparatively few districts, at the head of the list of which stands Basti, with its large population of 1,472,994, and its absurd death ratio of 13·22 per 1,000 of population for the year.

38. The relative mortality for the three seasons in the past four years appears in the following table :—

TABLE II.

	Season.			Proportion of 1,000.		
	Cold.	Hot.	Rains.			
	January, February, November, December	*March, April, May, June.*	*July, August, September, October*			
	Total Deaths.	Total Deaths.	Total Deaths.	Cold season.	Hot season	Rains.
1871, ...	195,208	164,751	215,691	342	285	373
1872, ...	210,234	205,107	287,907	299	292	409
1873, ...	204,237	231,997	268,690	290	329	381
1874, ...	206,022	207,519	258,718	306	309	385

The figures show that the past hot season was much more favourable to life than the same season of the preceding year. The greatest proportion of mortality, as in all years, occurred in the rainy season, and this is due entirely to the excessive fever mortality which occurs in that season.

TABLE III.

39. *Deaths from the three principal zymotic causes according to season.*

Season.	Fever.				Cholera.				Small-pox.			
	1871.	1872.	1873.	1874.	1871.	1872.	1873.	1874.	1871.	1872.	1873.	1874.
Cold, ...	158,340	168,357	152,657	154,260	596	1,526	676	860	3,521	4,050	11,995	13,867
Hot, ...	101,198	118,725	125,670	107,366	1,833	30,937	6,124	565	26,850	18,673	65,887	66,879
Rains,	162,293	203,354	180,025	187,962	1,044	18,102	8,468	4,971	8,078	7,350	19,211	12501
Total,	421,831	490,436	458,352	449,588	3,473	50,565	15,268	6,396	38,449	30,073	97,093	93,247

This table shows—That FEVER disease was less prevalent in 1874 than in either of the two preceding years, and especially it was less prevalent during the hot season, the result probably of the early establishment of the rains.

That CHOLERA disease was very little prevalent, the prevalence being restricted to the rainy season. This is in accordance with the rule so far as my experience yet teaches, which is, that whenever cholera is little prevalent during the hot months, it will not be generally prevalent in the epidemic form in that year.

That SMALLPOX was almost as prevalent last year as in 1873, the excessive prevalence being confined to the months of the hot season, in accordance with the rule.

FEVER IN 1874.

40. As in all years, the great cause of death throughout the province in 1874 was FEVER. Of the total ratio of mortality per thousand living, namely 21·84, 14·61 is recorded as due to FEVER, being nearly 67 per cent. of the total mortality; in 1873 it was 65 per cent.; in 1872, 69 per cent.; in 1871, 73 per cent. The ratio of mortality from this cause ranges from 7·07 in Garhwal to 32·50 in Bulandshahr.

The districts in which the mortality from this cause was greatest in 1874 appear in the following table:—

TABLE IV.

Number.	District.	Population.	Deaths from fever in 1874.	Deaths to 1,000 living.	Ratio in 1873.
1	Bulandshahr, ...	936,593	30,439	32·50	20·42
2	Tarai, ...	185,647	4,523	24·36	25·26
3	Meerut, ...	1,273,914	28,910	22·69	20·46
4	Etawah, ...	668,581	12,684	18·97	14·89
5	Muzaffarnagar, ...	690,082	12,955	18·77	17·29
6	Mainpuri, ...	765,783	14,226	18·57	15·65
7	Etah,...	703,485	12,706	18·06	14·59
8	Cawnpore, ...	1,155,439	20,155	17·44	17·83
9	Gorakhpur, ...	2,019,350	34,308	16 99	18 38
10	Aligarh, ...	1,073,108	16,897	15·74	13·10

In last year's *Table IV.* three districts, Jaunpur, Benares, and Mirzapur, appeared, which have no place in the table this year, their places being taken by Etawah, Mainpuri, and Etah.

41. It will be noticed that Bulandshahr heads the list, last year it was third; Tarai, which usually heads the list, is second; and the succeeding six districts, with Aligarh No. 10, include the country which forms the centre of the Duab, and is peculiar, as being a country much irrigated by canals.

In this country during the past year a very considerable mortality has occurred from FEVER disease in many centres of population, and in this misfortune the people of the Bulandshahr district have participated in the greatest degree.

42. The attention of Government has been given to this question of increased FEVER death-rate in the Doab during the past year, and I think a variety of opinions have been recorded in regard to its probable cause. I still think and believe that its cause is the change which has come over the surface of the country indicated since canal-irrigation was introduced; and I believe the form of FEVER from which the people have died, and from which they will continue to die, is malarial and non-contagious, and not typhoid and contagious. The very best opportunities has been given to me of learning the truth in this matter. I have seen the people in their homes in many centres of population; have seen many people suffering from the FEVER of which they die; have seen the results of the FEVER in those getting well; and have gathered much evidence in regard to symptoms of the disease when it greatly prevails, and the result is the formation of the opinion recorded above.

43. It is true that I have found a few cases of persons who having suffered many days, and after several attacks, had fallen into a typhoid state, even to the extent of showing *purpuric* spots upon the skin, and of presenting symptoms of diarrhœa, proving serious enteric derangement. But I think that is a condition not unlikely to result amongst the people of India from the frequent attack of a fever at first remittent.

The history of the disease, wherever I have heard it described by the actual sufferers, or the friends of those dead, was always the history of intermittent or of remittent-fever, never of continued-fever.

Certainly continued-fever is a disease of the North-Western Provinces, and is not difficult to find in any centre of population much noted for filthiness, and especially where animal remains are allowed to decay in close proximity to the houses, or where, in a year of scarcity, poverty has very much pinched the people. But this form of FEVER is more common about the close of the cold season, and, I suspect, during the hot season. Whereas the FEVER of the Doab, of which so many people have died, prevails at the time of the drying up of the rains,—during the months of August, September, October, and November,—as will appear from the following statement of deaths from FEVER which occurred in those months as compared with the deaths which occurred in the other eight months of the year within the circle of greatest mortality in the Bulandshahr district:—

Circle.	Population.	Total deaths from fever in August, September, October and November, 1874.	Total deaths in the eight other months of the year.	Ratio per 1,000 of August, September, October, and November.	Ratio per 1,000 of eight other months.
(Town Circles.)					
Gulaothi, ...	5,608	123	87	21·9	15·5
Sikandarabad, ...	18,349	411	194	22·4	10·5
Bulandshahr,... ...	14,812	889	343	60·0	23·1
Khúrja, ...	26,956	2,180	348	81·2	12·9
(Rural Circles.)					
Gulaothi, ...	54,423	1,456	535	26·7	9·8
Sikandarabad, ...	42,173	1,198	467	28.4	11·1
Bulandshahr,... ...	79,035	1,762	579	22·3	7·3
Khúrja, ...	48,783	1,685	613	32·5	12·6
Total, ...	290,031	9,704	3,166	33·5	10·9

44. During the past cold season I have inspected several of the centres of population in which mortality from this cause had been great; and of the circles above mentioned, I have seen Bulandshahr, Khúrja, and Gulaothi; have carefully examined the conditions within and without the towns in question; have consulted with the principal resident authorities and landlords; and have no doubt whatever that the excessive fever mortality has been due to increase of moisture in the land forming the town site, or increase of moisture in land neighbouring the site. My note-book,

contains many entries in proof of this, but I will enter here but a few words of evidence in regard to these three towns. Of Khúrja I read, under date the 11th January :—"Every person I meet in the town looks ill, and all say they have been ill with fever. The tahsíli, built nine years ago, has a damp floor, and the dampness extends one yard up the walls. The walls of the houses in the town are damp, and those made of earth are damp to the top where the tiles come down to form the roof. All the papers of the tahsíli and octroi office smell of dampness, which is ruining the place; and the busy and comparatively cheerful town of Khúrja, as I knew it three years ago, seems very much quieter and the people sadder now. They say that no house in the town has escaped without a death during the past four months. The jhíl or swamp to the east of the town has much increased, and appears to me now to cover a space of a square mile at least."

45. Of Bulandshahr I read, under date the 16th January :—"The khádir of the East Káli Nadi, which skirts the town closely on the east and south sides and is about a mile wide here, appears moist in many places. The water of the nadi proper is about 100 yards wide and apparently stagnant. The khádir as a whole partakes in appearance of the nature of a swamp, over which a chill east wind is blowing towards the town. The low part of the town site, where it borders the nadi, is damp to the surface, and the dampness extends for about a yard up the mud-built walls of the houses. Where the bridge crosses the Káli a wide expanse of stagnant water exists covering many acres. Profitable cultivation cannot now be effected within the khádir limits near to the town as formerly because of the increase of moisture, the spring level being at the surface."

46. Of Gulaothi I read :—"The town site is about a mile and a half west of the Káli Nadi. The land between the town and the rájbaha, although generally bearing crops, has become swampy in more than one place. The spring level having greatly risen, the small swamps are permanent for many months of the year,—so permanent, that where formerly the land, though low, was perfectly dry, now snipe may be found, as I noticed in inspecting the place. The result is that the land of the town site generally is damp, so that in digging into it the dampness was seen to extend from the very surface to the spring level. Besides this increase of moisture a really vast collection of water accumulates in the rains in large excavations both on the north-east and south borders of the town. Last year something was done to fill up the great excavations of the north and east borders by throwing the earth of certain disused brick-kilns into them, but the earth utlized was insufficient for effectual improvement, and water lies in patches over the raised surfaces."

47. I have thought it well to add to this chapter a map showing the limits of the mortuary circles of the Doab, and the ratio of mortality during the past year in each circle. I think the figures in this map are worth very little, because the mortuary registration is so unequally effected in the different circles. But be the figures of what value they may, the map shows that it is certain the circles of greatest mortality of the past year are in the neighbourhood of the nadis or rivers which drain the land.

For example, I have it on the testimony of the Superintendent of the Stud at Babugarh, that in the villages of Opadhia and Kaniya, near to the Stud, and bordering the nadi, fever so prevailed during the months of September and October last that all the residents were sick and very many died—quite one-half of the population it is believed. During this period of tribulation the cattle were left to roam at large and fed upon the crops for days together. And the same officer complained to me that Babugarh, and the Stud site generally, which used to be noted for its healthiness and to be frequented from Meerut as a place of change for betterment of health, had in recent years quite lost its repute on that score because of the prevalence of fever in the closing months of the year. This he attributed, and I believe rightly, to the changed nature of the Káli Nadi *khádir* land which borders the settlement, and in which formerly good crops of oats could be grown, but cannot now because of the moisture which pervades it.

No. 1.
MAP
of the
UPPER DOAB
Showing ratio of deaths from fever per 1000 of population in each circle.
The shaded portion shows area of Canal irrigation.
Dotted figures refer to Town Circles
DEHRA DUN
GANGES RIVER
JUMNA RIVER
No. 1 Continued
MAP
of the
DOWN DOAB
Showing ratio of deaths from fever per 1000 of population in each circle.
The shaded portion shows area of Canal irrigation.
Dotted figures refer to Town Circles
GANGES RIVER
JUMNA RIVER

48. In connection with this subject I have to notice a report upon the prevalence of fever disease in the Meerut district prepared by Dr. Moir, the Civil Surgeon. The report will be found in the appendix, and will repay perusal, as containing the opinions of a thoughtful man on this most important subject. And it contains certain remarks upon the existing system of mortuary registration which are I think absolutely correct as applied to the whole province, and much deserve the favourable consideration of Government.

49. Dr. Moir's opinion is that we have no proof of the cause of increased fever mortality during the past four years in Meerut; that we certainly have no proof of canal-irrigation being its cause, but rather the contrary— that the fever has been less prevalent where irrigation prevailed. The argument is founded on the figures of the mortuary statistics, and especially of the mortuary statistics of the towns. I think that is bad ground to tread upon yet, and therefore do not, as a rule, endeavour to prove anything by the mortuary figures; but I notice of Dr. Moir's table No. V., that in the first division are entered two towns, Meerut city and Pilkhuwa, as distant from canal-irrigation, which may be correct, inasmuch as all their lands are not watered from the canal; but as a fact the sites of both towns are in a good measure surrounded by irrigated country, and has been as much influenced in regard to dampness as probably any part of the Doab, and they should I think be entered in the second division. Dr. Moir says of the Meerut site, that now in the rains the soil in low-lying places is perfectly saturated with moisture; the spring level, as shown by the accurate measurements received in this office for transmission to the Sanitary Commissioner with the Government of India, shows an annual progressive rise in the spring level of nearly eleven inches during the past five years. If the same ratio is accepted for all years since the opening of the canal, a very fair idea of the total rise may be obtained, and the local statement of 20 feet is probably correct. In regard to the town of Pilkhuwa, its lands are partly watered by the canal, and they are bordered to the north by irrigated country; indeed, I think about half the rural mortuary circle of Pilkhuwa is irrigated.

50. If the figures of the statement are re-arranged accordingly, the average ratios for the past four years will change to 28·92 for towns in irrigated country, against 26·59 in towns distant from canal-irrigation and not influenced by it; and this notwithstanding the absurd ratio of 15·52 for Mawána in the irrigated list. Then it will not be possible to argue that the more complete the returns are, the more marked is the salubrity of the irrigated districts. But in fact the figures, I believe, teach nothing of truth, neither is anything to be correctly learnt in this matter by arguments founded on them, or by a comparison of results in places where the water of the canal is poured over the surface and where it is not.

51. I believe the truth can be learnt in respect to this matter only by actual inspection of the places where the fever death-rate is known to be great, and as I have over and over again seen the dampness of floors and walls which have resulted from the rise in the spring level in these places; have over and over again heard the bitter complaints of it from all classes of the people as a cause of frequent sickness and death, I am unable to resist the conclusion that the dampness is the principal cause of their trouble.

52. I cannot say why dampness is a cause of disease, as I cannot prove that the rise of the spring level, say from 40 to 15 feet, is a cause of disease to the people resident in the changed country. Still, I believe it is a cause of disease, of which any person may have ample proof by living for a time in a damp house, or by encamping for a time in a part of the Doab where the subsoil has been made permanently damp to the surface by the rise of the spring level.

In considering this matter it should be remembered that dampness within or around the dwelling-places is a cause of many other forms of disease besides fever—such, for example, as rheumatism or influenza.

53. In regard to the dampness existing in the towns of greatest mortality in the Bulandshahr district in 1874, it has been urged that the condition is due in greatest measure to the plentiful rain-fall of the past year. It is true that in many places in

the province the rain-fall in 1874 was unusually plentiful, and especially in the eastern districts, but the fall registered in the Doab was quite within the average. And in regard to the towns of Khúrja and Bulandshahr, where the subsoil in January, 1875, was seen to be damp to the surface, and much above it, even within the house walls, the rain-fall registered at the tahsils from January to December, 1874, was for Khúrja 25·3 inches, and Bulandshahr 32·5 inches.

54. With reference to the epidemic form of the fever in question, I think it is true that fever disease has prevailed more in some years in the Doab than in others, during the years of which record exists as regards the dispensaries and the troops. And as I believe the dispensary returns accurately reflect the conditions amongst the general population as regards disease, I have no doubt of the correctness of the inference that the general population has suffered more in some years than in others, and those returns show that the years of greatest suffering have been pretty evenly distributed over the period in question. But the existing records will, I think, hardly warrant the opinion that the prevalence of the disease is guided by periodic laws. That intermittent and remittent-fevers prevailed in the Doab before canal-irrigation was introduced is of course true, and I believe they prevailed because of the prevalence of malaria, due in greatest measure to the very considerable extent of moist khádir land which has existed for countless years in and about the country in question. And I think any cause likely to increase the extent of such land, but especially any cause likely to bring formerly quite dry ground to a permanent condition of dampness will foster and increase the old fever tendency.

55. Doubtless the only possible remedy against the further increase of moisture in the land is to improve the natural drainage outlets or nadis, and then to provide the communicating channels which shall bring the surplus waters of swamps or damp places to them quickly.

56. Something has been done in this direction already in Saháranpur and Muzaffarnagar; and during the past year I have seen some of these completed works for improved drainage, and think they are likely to effect a considerable amount of good in the part of the country immediately influenced. I noticed a clear running stream of considerable volume passing in them to reach the receiving nadi, and I think, if kept in good order, they will certainly result in removing in some considerable measure the excessive moisture now existing at the places from which they commence, and also in the lands through which they pass, and probably improve the sanitary conditions there. I trust this good work may be continued.

57. For example, I hope the recently approved scheme of drainage for the Meerut site (a very necessary work, for the Abu nála is fast becoming a nadi with wide stagnant pools in it now where formerly all was dry land for many months of the year) may be permitted to extend to the improvement of the Káli Nadi below Meerut.

And the drainage of the Dharpa and Khúrja country which is to be effected into the Karwan nadi by means of a long and important cutting will I trust be combined with the improvement of the nadi bed.

The nadis—Kristna, West Káli, Hindan, East Káli, Karwan, Isan, and Rind—also much require improvement by such cleaning and deepening of the existing bed, from end to end of the nadi, as shall provide at all times and in all parts a stream of quickly moving water for discharge into the Jumna or Ganges as the case may be.

58. These nadis as they now exist show many places throughout their length where, either from silting up of the bed or the growth of water plants, especially *sewar*, the water is almost stagnant. And I believe, from what I have seen of the results of the improvement of the Pándhoi and other minor natural drainage channels of the Saháranpur and Muzaffarnagar districts, that by a little patient attention and skilful management the important nadis above mentioned might be made efficient for the purpose of safely removing not only the excessive moisture now existing in the nadi bed itself, but also in some important measure the water of the land generally, which now accumulates in many places to the increase and permanence of jhils or swamps formerly of little extent and casual existence.

CHOLERA.

59.* During 1874 cholera prevailed in an epidemic form only in the districts of Gorakhpur and Basti. As in all years of which we have record, deaths from this cause occurred in almost all the districts, but the disease did not increase or attract attention anywhere excepting as above mentioned. And the table shows that 1874 was a year in which cholera was very little prevalent indeed.

TABLE V.

Annual mortality from cholera in the North-Western Provinces for the ten years 1865 *to* 1874.

Population.	Years.	Deaths from cholera registered.	Ratio to 1,000 of population.
29,405,322, ...	1865, ...	76,322	2·58
,, ...	1866, ...	8,175	0·27
,, ...	1867, ...	57,837	1·95
29,588,653, ...	1868, ...	20,680	0·61
,, ...	1869, ...	90,770	3·06
,, ...	1810, ...	13,123	0·44
,, ...	1871, ...	3,473	0·11
30,884,032, ...	1872, ...	50,565	1·64
30,769,056, ...	1873, ...	15,268	0·49
,, ...	1874, ...	6,396	0·20

Thus 1874 is seen to have been a year in which cholera was less prevalent than in any of the past ten years, excepting 1871.

TABLE VI.*

60. *Registered mortality from cholera in all districts of the North-Western Provinces for the ten years* 1865 *to* 1874.

Number.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
1	Kumaun, ...	...	...	15	...	1	...	...	...	21	...
2	Garhwal, ...	...	...	4	...	...	...	...	...	...	...
3	Tarai, ...	...	...	6	...	...	...	...	4	5	...
4	Bijnor, ...	1	1	8	...	1	...	1	2	1	1
5	Moradabad, ...	10	3	43	1	2	2	2	11	7	1
6	Bareilly, ...	49	4	78	5	9	2	1	15	1	1
7	Shahjahanpur, ...	31	1	78	...	3	...	1	44	1	...
8	Budaun, ...	6	1	8	1	11	1	1	9	5	...
9	Dehra Dun, ...	...	...	9	...	...	...	...	3	...	...
10	Saharanpur, ...	3	1	9	1	2	1	2	14	...	...
11	Muzaffarnagar, ...	1	2	21	2	2	2	1	...	...	...
12	Meerut, ...	9	7	41	3	6	1	1	5	1	...
13	Bulandshahr, ...	2	1	7	1	2	1	...	4	...	...
14	Aligarh, ...	2	1	11	1	4	1	1	8	4	1
15	Etah, ...	2	1	12	1	2	1	...	3	2	...
16	Muttra, ...	1	1	8	1	11	1	...	4	3	...
17	Farukhabad, ...	18	2	6	1	3	...	...	25	1	1
18	Mainpuri, ...	6	1	7	1	3	...	...	4	5	...
19	Agra, ...	3	1	15	1	20	1	1	5	4	1
20	Etawah, ...	35	1	1	...	4	...	...	15	...	...
21	Cawnpore, ...	16	2	18	1	28	...	2	16	1	...
22	Fatehpur, ...	29	2	7	1	10	...	...	5	7	...
23	Jaunpur, ...	14	3	2	9	29	7	4	83	6	...
24	Hamirpur, ...	88	...	2	...	21	...	...	1	1	...
25	Banda, ...	27	1	25	...	14	1	...	2	8	...
26	Allahabad, ...	42	3	5	6	29	2	2	36	9	...
27	Gorakhpur, ...	57	3	50	40	86	27	1	30	4	40
28	Basti, ...	13	1	51	5	43	50	...	25	1	10
29	Azamgarh, ...	24	3	9	14	88	13	2	26	10	4
30	Ghazipur, ...	15	11	13	33	108	4	3	6	13	1
31	Benares, ...	16	15	6	12	35	4	7	14	17	3
32	Mirzapur, ...	23	7	4	21	48	9	1	16	13	1
33	Jalaun, ...	102	1	...	...	26	...	...	1	...	...
34	Jhansi, ...	99	...	...	...	18	...	...	...	...	...
35	Lalitpur, ...	7	...	...	...	27	...	...	...	...	...

*In this table the entries of deaths stand for hundreds, thus 15 stands for 1,500.

Thus we see that again Gorakhpur and Basti and other eastern districts present themselves as the home of cholera in this province. In every year of the past ten, the disease has prevailed in one or other of the eastern districts, and we cannot hope ever to see a year in which it will be quite absent from the province. If any year of the last ten promised to be so distinguished, it was 1874, for the province remained absolutely free from epidemic cholera until it broke out in September in Gorakhpur.

61. The map which accompanies this section will show the distribution of the disease as reported to this office. The figures beneath the circle name denote the number of villages or centres of population in the circle, the figures above the name denote the number of deaths reported from each circle. I have endeavoured to prepare a statement showing the number of villages affected in each circle, but find that I can give this only for the Basti district, as the daily reports received from Gorakhpur during the progress of the disease mention only the deaths reported in each circle without mention of the villages concerned. The map shows that in Basti the disease prevailed in 13 circles, and the following statement gives the number of villages affected in each circle:—

TABLE VII.

Cholera in Basti District in 1874.

Name of circle in order from north to south.	Number of villages in circle.	Number of villages affected by cholera in 1874.	Date of first case reported.	Date of last case reported.
1. Chillia, ...	257	10	27th July.	30th October.
2. Lotan, ...	167	6	2nd August.	11th November.
3. Thurauli, ...	251	27	11th ditto.	26th ditto.
4. Misraulia, ...	177	2	1st November.	16th *ditto*.
5. Bansi, ...	504	7	5th ditto.	7th December.
6. Budhaban, ...	100	4	25th October.	13th November.
7. Majhra, ...	300	19	29th August.	2nd December.
8. Mehndawul, ...	337	26	29th September.	23rd November.
9. Rudhauli, ...	347	4	31st October.	1st December.
10. Dudhara, ...	286	16	11th ditto.	10th ditto.
11. Khalilabad, ...	312	12	3rd September.	11th ditto.
12. Basti, ...	659	6	5th November.	20th ditto.
13. Mahuli, ...	323	15	12th October.	13th November.

The above account is probably not correct in regard to the number of villages attacked, as it is very likely that the disease was present in some villages from which report was not made. Yet I think it is true that the disease when said to be epidemic in any circle, does really attack comparatively few centres of population in it.

In the map I have also entered the date of first and last case as reported, and the result appears to point to an invasion of the disease from Nepal in July last, and the gradual spread of the disease southwards.

No. 1.

MAP OF MC

GORAKHPUR A

Figures below cir
villages it contains.
Figures above circ
cholera reported.
The dates denote
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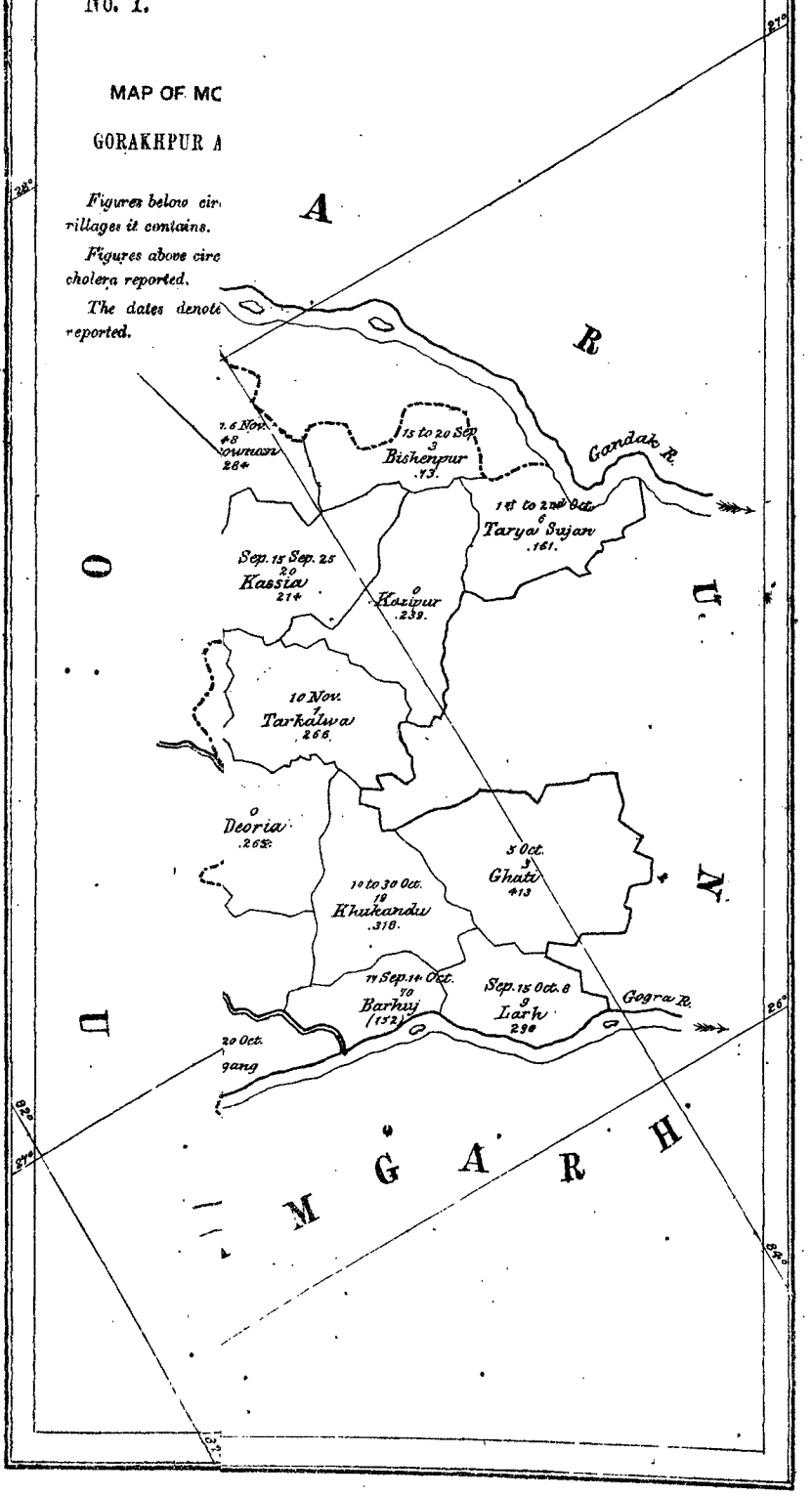

No. 1.

MAP OF MORTUARY CIRCLES
IN
GORAKHPUR AND BASTI DISTRICTS.

Figures below circle name denote number of villages it contains.

Figures above circle name denote deaths from cholera reported.

The dates denote day of first and last case reported.

TABLE VIII.

62. *Monthly deaths registered from cholera in* 1874.

District.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Kumaun, ...	...	...	...	...	1	...	...	...	...	...	...	...	1
Garhwal, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tarai, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bijnor, ...	1	2	4	8	13	6	6	7	1	2	3	2	55
Moradabad, ...	4	2	3	3	6	5	3	17	5	13	1	2	64
Bareilly, ...	...	2	1	11	6	5	10	5	4	7	2	...	53
Shahjahanpur, ...	...	2	3	2	5	2	4	...	1	...	...	...	19
Budaun, ...	1	1	3	2	8	5	5	9	5	...	4	3	46
Dehra Dun, ...	...	...	...	...	...	...	...	...	...	1	...	...	1
Saharanpur, ...	1	1	2	...	2	...	3	4	3	1	...	...	17
Muzaffarnagar, ...	...	...	...	...	...	...	...	...	2	...	...	...	2
Meerut, ...	...	...	...	...	...	...	...	...	3	1	...	2	5
Bulandshahr, ...	2	2	2	3	6	4	3	...	3	1	...	1	27
Aligarh, ...	1	...	2	4	4	7	8	19	8	3	...	6	62
Etah, ...	2	...	1	...	1	...	1	1	...	...	...	...	6
Muttra, ...	2	1	2	12	4	2	3	7	3	4	3	4	47
Farukhabad, ...	4	...	1	15	13	2	6	5	2	3	1	2	54
Mainpuri, ...	...	...	...	1	...	3	2	...	...	...	...	...	6
Agra, ...	1	...	1	11	2	2	4	4	11	15	...	...	51
Etawah, ...	3	...	3	4	1	2	1	3	1	1	...	...	19
Cawnpore, ...	5	...	1	...	2	6	3	6	...	...	...	...	23
Fatehpur, ...	1	...	1	...	1	...	...	1	...	...	...	...	4
Jaunpur, ...	...	1	...	2	3	5	...	2	...	1	1	...	15
Hamirpur, ...	...	...	...	...	...	1	...	...	...	...	...	...	1
Banda, ...	...	...	3	...	...	1	3	...	...	...	...	...	7
Allahabad, ...	...	...	1	5	...	3	...	1	1	2	1	1	15
Gorakhpur, ...	1	1	...	1	...	...	12	126	1,196	2,296	352	4	3,988
Basti, ...	...	...	...	...	2	...	5	36	82	467	337	35	964
Azamgarh, ...	...	1	3	2	24	65	13	59	140	37	11	1	356
Ghazipur, ...	2	...	...	3	6	7	5	37	38	18	10	...	126
Benares, ...	3	3	2	6	65	46	9	22	40	38	10	7	251
Mirzapur, ...	...	...	2	2	14	56	13	9	13	...	...	...	109
Jalaun, ...	1	...	...	...	...	1	...	...	...	...	...	...	2
Jhansi, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lalitpur, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, ...	35	19	41	97	190	237	123	379	1,559	2,919	736	70	6,396

SMALLPOX.

63. Smallpox in 1874 was prevalent and very fatal in almost all the districts of the plains. As in all other years since mortuary registration has been attempted, the districts of Kumaun, Garhwal, Dehra Dun, and Tarai show almost blank returns, in regard to this disease, during the past year. This is due, as often before reported, to the perfection and reality of the vaccination practised in those districts. In the Tarai during the past year 152 deaths were recorded from this disease, which seems to point to a less perfect vaccination there in late years, or the cases may have occurred amongst the children of persons recently arrived in the district. They were reported principally from the Bazpur rural circle with 48 deaths, the Kashipur rural circle with 50 deaths, and the Bilhari rural circle with 28 deaths.

64. I know that great endeavours are being made by the vaccination department to protect the children of the plains districts from this terrible disease, but I fear the undertaking is too vast for the accomplishment by existing means. Also the conditions under which this battle against disease is waged are too unfavourable, in regard to the religious beliefs of the people and peculiarities of climate, to leave ground for sanguine hope that the swarming millions of the plains will be protected by vaccination for very many years to come. Certainly the mortuary records of the past ten years do not witness favourably in regard to this matter. They point unmistakably in almost all districts to years of abatement and then a year of great prevalence. But of all parts of the province it is in Rohilkhand that the disease seems to maintain an annual serious prevalence.

The ratio of deaths to total population from this cause in the past year was 3·03 per 1,000. If the calculation is made upon the total population below the age of 12

years, the section almost entirely concerned, the result will be 9·1 per 1,000, or approaching to one in a hundred,—a very serious tax upon life, especially as affecting the quite young, and being due to a preventible cause :—

TABLE IX.*

65. *Registered mortality from smallpox in all districts for the ten years* 1865 *to* 1874.

Number.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
1	Kumaun,	...	...	...	...	...	1	...	...	1	...
2	Garhwal,	...	...	...	...	...	...	...	1	...	...
3	Tarai,	...	2	3	...	...	...	2	...	1	2
4	Bijnor,	1	39	45	2	...	5	69	38	15	20
5	Moradabad,	10	40	60	8	7	25	50	13	35	33
6	Bareilly,	52	127	43	13	6	19	43	29	77	18
7	Shahjahanpur,	86	113	11	2	67	20	35	31	52	26
8	Budaun,	28	20	34	4	5	7	12	13	58	15
9	Dehra Dun,	...	...	1	...	...	...	...	1	...	...
10	Saharanpur,	24	103	11	32	11	20	44	53	38	18
11	Muzaffarnagar,	...	67	10	23	11	30	43	11	31	9
12	Meerut,	72	37	9	9	50	22	13	8	25	10
13	Bulandshahr,	57	199	24	13	63	16	4	10	70	11
14	Aligarh,	79	10	4	19	64	5	7	6	47	13
15	Etah,	52	1	5	11	35	1	3	3	50	13
16	Muttra,	100	1	1	10	60	4	3	5	18	6
17	Farukhabad,	67	4	4	7	39	...	3	1	16	33
18	Mainpuri,	24	4	13	9	42	1	1	...	8	32
19	Agra,	67	1	5	10	78	2	3	4	32	13
20	Etawah,	13	1	2	2	36	2	3	1	5	48
21	Cawnpore,	75	3	13	4	63	3	13	2	55	74
22	Fatehpur,	16	4	7	5	61	...	1	2	5	31
23	Jaunpur,	8	5	13	11	18	5	1	2	10	33
24	Hamirpur,	30	1	1	13	41	3	3	4	1	12
25	Banda,	25	4	8	12	70	1	2	3	3	28
26	Allahabad,	6	6	7	8	14	3	2	3	18	66
27	Gorakhpur,	7	11	25	3	4	2	2	11	149	138
28	Basti,	27	11	17	12	4	5	8	33	89	21
29	Azamgarh,	40	6	5	20	12	18	3	3	23	96
30	Ghazipur,	25	9	6	17	12	11	3	2	22	38
31	Benares,	5	2	4	8	12	2	2	1	6	5
32	Mirzapur,	23	6	3	8	23	3	3	4	9	28
33	Jalaun,	2	1	...	2	15	1	1	...	1	14
34	Jhansi,	8	1	..	1	32	...	1	1	1	4
35	Lalitpur,	9	5	2	1	10	...	...	3	...	4

This table shows that there has been no year during the past ten in which smallpox has not prevailed as an epidemic in some part of Rohilkhand, and certainly that portion of the province very much requires the special attention of the vaccination officers.

66. During the past year there was also a very great prevalence of the disease in the eastern districts, but especially in Gorakhpur, where the disease has prevailed now for two successive years. Judging by the general rule, it seems probable that for the next two or three years smallpox will be very little noticed in Gorakhpur or will prevail in a milder form. Indeed it seems to be only in Rohilkhand that smallpox prevails in a very fatal form every year. In the map of that portion of the province which accompanies this section, I have shown the distribution of the mortality as recorded during the past year, and the map shows how the disease is distributed pretty evenly over the whole division. Yet having regard to the great number of villages in each circle, shown in the figures beneath the name of the circle, the deaths from this cause, shown in the figures above the circle name, seem comparatively few. And I think it not unlikely that the mortality from smallpox prevails every year in only a few villages of each circle. Such experience as I have in this matter further confirms this opinion. Unfortunately our system of mortuary returns does not take note of mortality in centres of population separately, although, indeed, the information might be obtained from the registers. I think the number of centres of population affected in every circle should at least be recorded. And I hope to be able to obtain at least so much of detail in regard to this disease and of cholera in future years.

* In this table the entries of deaths stand for hundreds.

MAP SHOWING DISTRIBUTION OF SMALLPOX IN ROHILKHAND DURING THE YEAR 1874

The figures below the circle name denote number of villages in the circle.

The figures above the circle name denote number of deaths from smallpox registered in the rural circle.

Figures marked (*) denote deaths recorded in town circle of same name.

Bowel Complaints.

67. During the past year deaths from bowel complaints—or principally from dysentery or diarrhœa, though I am inclined to think that deaths from enteric fever are sometimes entered under this head—were most numerous in the following districts, in which, indeed, deaths from this cause seem to be more than usually numerous in all years.

TABLE X.

Mortality from bowel complaints.

District.	1871. Ratio to 1,000 living.	1872. Ratio to 1,000 living.	1873. Ratio to 1,000 living.	1874. Ratio to 1,000 living.
1. Kumaun, ...	3·39	4·91	5·05	3·46
2. Garhwal, ...	8·34	8 31	7·11	6 53
3. Moradabad, ...	3·39	5·40	4·74	3 92
4. Shahjahanpur, ...	3 99	6·85	4 74	3·71
5. Budaun, ...	1·54	2·16	2·06	3·14
6. Dehra Dun, ...	2·55	2 66	4·27	4·14
7. Saharanpur, ...	2·75	2 91	2 41	3·38
8. Aligarh, ...	2·26	2·92	3·87	3·02
9. Fatehpur, ...	4·13	4 81	4·04	2·84
10. Hamirpur, ...	6·10	7·10	6·71	4·35
11. Banda, ...	2·21	2·90	3 95	2·48
12. Lalitpur, ...	2·43	4·49	4 76	4 22
13. Jalaun, ...	2 83	1 00	1·86	3·06
14. Jhansi, ...	2·81	2·75	2·51	1·74

The preceding table shows the ratio of mortality in the districts in which it is greatest from this cause.

In the remaining districts the ratio of deaths from this cause is very small, ranging between 2·0 and 0·39. And if the returns are worth anything, they show that death from dysentery and its allied complaints is by no means a very common circumstance amongst the general population.

The greatest mortality from this cause appears to occur in the hill country of the Himalayas, in Bundelkhand, and in some districts of the Doab.

Injuries and Accidents.

68. Deaths from these causes have been recorded in greatest numbers during the past year in the following districts, and to the account I have added the ratios of the previous three years:—

TABLE XI.

Accidental deaths.

District.	1871. Ratio to 1,000 living.	1872. Ratio to 1,000 living.	1873. Ratio to 1,000 living.	1874. Ratio to 1,000 living.	Remarks.
Garhwal, ...	1·11	0·92	1 09	1·17	
Shahjahanpur, ...	0·53	0·69	0·72	0·77	
Budaun, ...	0·37	0·42	0·53	0·64	
Fatehpur, ...	0·57	0·62	0·70	0·68	
Banda, ...	0·68	0 98	1·12	1·14	
Allahabad, ...	0·63	0·60	0·64	0·61	
Gorakhpur, ...	0·43	0·54	0·49	0 66	
Azamgarh, ...	0·62	0·50	0·57	0 62	
Mirzapur, ...	0·68	0·71	0·71	0·76	
Jalaun, ...	0·32	0·47	0 63	0·71	
Jhansi, ...	0·60	0 80	0·89	0·72	
Lalitpur, ...	0·61	0·89	0·79	0·81	

The table points to a persistent higher ratio of deaths from these causes in some districts, especially Garhwal, Banda, Mirzapur, Jhansi, and Lalitpur, and as these

districts are either mountainous or are noted as containing many wild beasts, I think it is likely that deaths by accident do occur beyond the general average therein.

69. Of the sections into which the column of deaths by violence is divided, *suicide* is recorded to have caused 1,511 deaths during the past year, namely, of 425 males and 1,086 females, figures which probably very correctly record the greater prevalence of suicide of females over males in this country. The greatest number of suicides, 146, were recorded in Shahjahanpur. Farukhabad records 109, Azamgarh 85, Budaun 77.

Wounds caused 1,348 deaths, and Agra heads the list with 137, followed by Moradabad with 95. And these two districts are doubtless peopled in considerable measure by Muhammadans, who are more prone than Hindus to resort to the use of the sword or knife. But no district of the province is quite free from a record of deaths by wounds, ranging, excepting as above, from 71 in Gorakhpur to 2 in Terai.

70. *Accident* accounts for 9,338 deaths, but as nothing is known concerning the nature of the accidents, it can serve no good purpose to mention them further.

71. *Snakebite and attack of wild beasts* account for 3,832 deaths, most numerous in the following districts:—

TABLE XII.

Mortality from snakebite and attack of wild beasts in 1874.

District.	Deaths registered.		
	Male.	Female.	Total.
Gorakhpur, ...	209	231	440
Banda, ...	164	243	407
Allahabad, ...	120	177	297
Mirzapur, ...	104	122	226
Budaun, ...	77	107	184
Bareilly, ...	88	105	193
Bijnor, ...	66	81	147
Moradabad, ...	54	86	140
Shahjahanpur, ...	68	75	143
Basti, ...	78	80	158

72. I think these deaths are attributable in greatest number to the attack of wolves, but I dare say a very considerable number are due to snakebite. It is certain that wolves are numerous in many districts, and especially so in the districts entered in the table, and these animals are prone to attack and carry off children in the cold season months. I know the reward given for the capture and destruction of a wolf results in procuring the death of a considerable number of these animals, and more especially of quite young wolves. But still the fact remains, that these dangerous animals are too numerous to permit of any sheep or goat being left at large at night with hope of recovery alive in the morning anywhere in the province outside the great centres of population. The other wild animals belonging to this country are very wild and very dangerous to human life, doubtless, when favourable opportunity for the display of their ferocity presents itself. But fortunately they, as a rule, keep themselves in the unpeopled tracts, shunning man and all his works and landmarks. Whereas wolves, and in some measure hyenas, are skulking brutes which prowl about the villages, and for want of better food very often carry off a child. Partly devoured remains testify to the cause of death in the morning. A circumstance of this nature has so often come to my knowledge, in marching through the country, that I have an idea the village community almost everywhere could provide a truthful account of young lives lost in this way at some time or other. And I think a vigorous and persistent endeavour should be made to encompass the destruction of these animals until at least they have become very scarce, and such as remain have learnt to avoid the habitations of men. This result could be accomplished I believe, and the gain would justify the endeavour; for I know the children of the villages almost everywhere live in dread of wolves, and are frightened at the name of wolf to an extraordinary degree.

CHAPTER III.

OF THE METEOROLOGY OF THE YEAR AND THE GENERAL CONDITION OF THE PEOPLE.

73. The facts in regard to the meteorology of the year 1874 appear in the following table No. I., and I have prepared a second table (No. II.) to show the distribution of the rainfall as registered at the fourteen meteorological observatories from which returns are sent to the Meteorological Reporter at Roorkee.

It will be observed that Ajmere is included in the list. Excluding the figures for that station, the average rainfall of the province for 1874 will appear as 53·52 inches.

A little study of form No. II. will serve to show the unequal distribution of the rainfall, a fact observed in all years. For example: in the south, represented by Jhansi, we have a comparatively scanty fall of 34·35 inches; in the east, represented by Benares, the unusually large fall of 62·92 inches; in the west, represented by Agra and Meerut, the scanty fall of 28·29 and 37·04 inches respectively; in the north, represented by Bareilly, the good fall of 55·50 inches.

74. A study of the weekly rainfall returns for the whole province for the year will teach in more marked degree this peculiarity of unequal distribution; and as a fact, the difference between the total rainfall where it has been most and where it has been least is so great, that a statement of average rainfall for the province is likely to mislead in regard to the question of general sufficiency. But I can safely state that the year 1874 may be characterized as a year in which rain fell in more than the usual average,—and especially it was a year in which the rainy season commenced early, even as early at the end of the first week in June, a very unusual circumstance.

75. In my report for 1873 it was noticed that, for that year, the rainfall in the hills had been less than the rainfall in the plains, and that districts—as Agra and Jhansi—noted for scanty rainfall had received an unusual supply; and districts—as Gorakhpur and Benares—noted for plentiful rainfall had received a poor supply.

During 1874 exactly the opposite of this was noticed, the hills and the eastern districts received their usual large supply, and Agra and Jhansi were scantily supplied. Yet I think the rain, falling at timely intervals, even in the latter country, was sufficient for the necessary agricultural operations, as I have noticed during the past cold season that the crops of the Agra district presented a fairly plenteous appearance.

76. By referring to table I., it may be seen that the mean temperature of the year 1874, in all months excepting April, May, September, and October, was less than the mean for the past twelve years, and I think it is likely that the climate in the plains was unusually pleasant and bearable, resembling the year 1871 in that respect. Having been absent in England I cannot speak of this from my own personal knowledge. But both years were alike famous for their plentiful and early established rains, and in both years alike cholera disease was very little prevalent.

TABLE No. I.

Months.	*Barometer.*		*Thermometer.*		*Humidity.*		*Wind.*		*Rain.*			
	Mean for twelve years.	Mean in 1874.	Mean temperature for twelve years.	Mean in 1874.	Mean for twelve years.	Mean in 1874.	Mean direction for twelve years.	Mean in 1874.	1871.	1872.	1873.	1874.
January, ...	29·121	29·137	58°	54°	58	62	W. 27° N.	W. 5° N.	0·81	2·24	0·32	0·33
February, ...	29·068	29·039	61°	60°	54	54	N. 41° W.	N. 42° W.	1·05	0·89	0·15	1·06
March, ...	29·005	29·034	70°	67°	45	45	W. 35° N.	W. 38° N.	0·40	0·37	0·55	1·14
April, ...	28·874	28·859	81°.	82°	30	22	W. 21° N.	W. 5° S.	0·46	0·54	0 30	0·05
May, ...	28·743	28·668	88°	89°	32	20	W. 16° S.	W. 44° N.	2·56	0·99	1·17	0·31
June, ...	28·620	28·659	90°	86°	46	62	S. 26° E.	S, 38° E.	10·65	4·57	1·29	10·28
July, ...	28·635	28·673	85°	83°	71	76	S. 35° E.	S. 40° E.	17·24	14·51	14·82	15·86
August, ...	28·668	28·690	84°	83°	73	74	S. 30° E.	S. 24° E.	12·06	15·06	10·96	14 36
September, ...	28·794	28·788	82°	82°	64	66	S.	S, 15° E.	7·52	6·29	7 91	6·92
October, ...	28·958	28·920	75°	76°	51	61	S. 19° E.	S. 23° E.	...	...	0·11	0·56
November, ...	29·123	29·106	65°	63°·5	64	59·5	S. 25° E.	S. 38° E.	0·60	0·40	0·20	0·0
December, ...	29·144	29·145	58°	56°·9	54·4	62·2	W. 3° N.	W. 2° N.	1·22	0 20	0·36	0·04
								Total, ...	54·57	46 06	38·14	50·91

TABLE No. II.

Rainfall in 1874.

Number.	Station.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Total of rainfall in 1874.	Total wet days.	Total rainfall in 1873.
		Rain in inches.	No. of wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.	Rain in inches.	Wet days.			
1	Chakrata, ...	...	...	1·69	3	3·29	7	0·46	4	1·55	4	14·24	18	23·71	28	17·08	24	7·54	9	...	...	...	...	...	...	69·56	97	43·99
2	Ranikhet, ...	1·67	3	2·37	6	3·56	6	0·05	3	0·56	5	11·61	20	17·00	24	18·53	28	5·82	9	...	...	...	...	...	...	61·17	104	27·23
3	Dehra, ...	1·47	7	3·77	6	3·59	7	...	...	0·58	3	18·79	22	34·63	30	25·80	27	7·85	13	...	...	...	...	...	...	96·39	115	86·80
4	Roorkee, ...	1·06	5	2·57	4	2·43	6	...	...	0·33	7	11·81	16	16·95	22	8·62	19	3·65	8	...	...	...	...	0·04	1	47·46	88	45·88
5	Meerut, ...	0·20	1	1·50	1	1·17	2	...	...	...	...	8·95	9	12·95	15	7·92	11	4·35	6	...	...	...	...	...	...	37·04	45	29·41
6	Bareilly, ...	0·05	1	0·80	2	0·65	3	...	...	0·30	1	7·65	13	14·20	21	10·10	21	21·75	11	...	...	...	...	...	...	55·50	73	34·70
7	Agra, ...	0·06	1	...	...	0·13	1	0·13	1	...	...	6·37	6	10·33	12	9·62	11	1·65	2	...	...	...	...	...	...	28·29	34	46·36
8	Fatehgarh, ...	...	...	0·25	1	0·10	1	0·01	1	0·02	2	12·40	16	16·84	19	13·86	15	8·09	9	...	...	...	...	...	...	51·57	64	24·24
9	Lucknow, ...	0·07	1	0·29	2	0·10	1	...	...	...	...	12·19	18	12·88	20	17·68	22	7·44	11	0·37	2	...	...	...	...	51·02	67	34·68
10	Allahabad, ...	...	...	...	...	0·56	2	...	...	0·02	2	6·67	16	15·58	17	8·93	24	8·50	11	0·22	2	...	...	...	...	40·48	74	32·80
11	Gorakhpur, ...	...	...	1·0	2	0·10	1	...	...	0·30	1	11·60	18	23·20	12	11·60	14	9·00	14	3·30	2	...	...	...	...	60·10	59	38·91
12	Benares, ...	...	...	0·27	3	0·12	1	...	...	...	...	13·57	17	9·16	23	27·43	26	8·37	14	3·50	6	...	...	0·50	1	62·92	99	36·09
13	Jhansi, ...	...	...	...	...	...	...	0·02	2	0·30	3	3·50	16	9·20	17	18·60	16	2·90	5	...	...	...	...	...	...	34·25	59	44·95
14	Ajmere, ...	0·05	5	0·30	1	0·20	1	..	...	0·66	3	4·59	9	5·47	11	5·20	14	no re	turn	0·50	2	...	...	...	...	16·97	46	...
	Total, ...	4·63	24	14·81	31	15·91	39	0·67	11	4·35	31	143·94	209	222·10	271	200·97	272	96·91	1·22	7·89	14	...	...	0·54	2	712·72	1,015	...
	Average of 14 Stations, ...	0·33	1·6	1·06	2·2	1·14	2·8	0·05	0·8	0·31	2·2	10·28	14·9	15·86	19·4	14·36	19·5	6·92	8·71	0·56	1	...	...	0·04	0·14	50·91	72·5	...

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77. THE GENERAL CONDITION OF THE PEOPLE may be gathered from the following statement :—

TABLE No. III.

Average price of common food articles during the past five years in June and December, when the crops of the year have been gathered.

Common food articles.	AVERAGE QUANTITY IN SEERS, SOLD FOR ONE RUPEE THROUGHOUT THE PROVINCE.									
	1870.		1871.		1872.		1873.		1874.	
	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.
Wheat, ...	16	20¾	26	21½	19½	18	16¾	15½	17¾	19½
Barley, ...	22	27	36	28	28½	24	22	19¾	22¾	25¾
Juar, ..	20¾	29½	26½	28¾	18½	19¾	20½	21½	...	22¾
Arhar (dal),	15½	16	25¾	20¾	18½	18½	17¾	15½	13¾	13¼
Gram, ...	...	...	...	...	...	...	...	...	20½	24

To the statement for the past year I have added the quantity of grain purchasable for one rupee, as gram is a staple article of food, especially in the districts of the southern country—Hamirpur, Jhansi, and Lalitpur,—and I find the jour quotations omitted for many districts during 1874.

The table witnesses to the fact that 1874 was a year of average plenty; but still prices were high, in some districts indeed, of the east and south, in the early part of the year, the quotations show a condition of food supply verging on serious scarcity. And no doubt the condition of famine which threatened in Bengal was not far off from the people of some parts of this province. But the rains came early in June, and were persistent, with the good result in regard to food supply to which the figures of December witness when compared with the figures for June.

78. To show this it is necessary I should give the district quotations which appear in the following table :—

TABLE No. IV.

Statement showing the price of grains in each district in the months of June and December, 1874.

	District.	JUNE.				DECEMBER.				AVERAGE OF DIVISION.
		Wheat.	Barley.	Gram.	Arhar.	Wheat.	Barley.	Gram.	Arhar.	
		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
1	Dehra Dun, ...	18 0	28 0	22 0	10 8	21 0	30 0	38 0	12 0	MEERUT.
2	Saharanpur, ..	21 9	29 2	26 15	11 14	23 11	39 6	32 5	12 6	June. Decr.
3	Muzaffarnagar, ...	22 9	33 0	26 0	16 8	25 5	39 10	31 14	15 6	S. C. S. C.
4	Meerut, ...	21 14½	27 6	25 0	16 5½	23 11	30 8¼	29 9½	14 4½	Wheat, ... 21 2 23 3
5	Bulandshahr, ..	22 0	29 0	25 0	16 0	24 0	31 8	30 0	16 0	Barley. .. 28 3 29 15
6	Aligarh, ...	20 8	24 8	25 0	16 0	21 8	27 8	28 0	15 0	Gram, .. 25 2 29 15
										KUMAUN.
7	Kumaun, ...	12 8	15 0	12 8	9 0	14 0	18 0	14 0	9 0	Wheat, ... 16 4 18 0
8	Garhwal, ...	20 0	24 0	10 0	7 8	22 0	22 8	10 0	7 0	Barley, .. 19 8 20 4
										Gram, ... 11 4 12 0
9	Bijnor, ...	19 11	23 2	23 1	14 10	20 13	28 2	25 5	11 4	ROHILKHAND.
10	Moradabad, ...	18 12	26 8	22 3	19 1	19 6	26 14	26 15	14 1	Wheat, .. 19 3 19 13
11	Budaun, ...	18 0	23 1	22 13	15 9½	18 0	22 12½	22 12½	13 9½	Barley, .. 26 14 27 3
12	Bareilly, ...	17 13	25 0	20 10	15 0	18 7	26 4	21 14	11 4	Gram, .. 21 10 23 5
13	Shahjahanpur, ...	20 0	26 6	21 4	13 2	20 4	27 0	21 8	14 0	
14	Tarai, ...	21 0	28 12	20 0	20 0	21 0	32 0	22 8	13 12	
15	Muttra, ...	18 0	26 8	20 8	15 0	20 0	31 0	31 0	12 0	AGRA.
16	Agra, ...	16 6½	22 14½	23 11¼	14 0	17 6	25 13	26 4	13 0	Wheat, .. 17 11 18 3
17	Farukhabad, ...	16 8	22 0	19 10	11 0	16 2	20 10	25 0	12 6	Barley, .. 22 14 24 1
18	Mainpuri, ...	18 4	22 0	22 0	14 8	18 8	23 0	23 4	15 8	Gram, ... 21 9 24 12
19	Etawah, ..	17 8	20 8	20 0	13 0	17 8	22 8	22 8	15 8	
20	Etah, ...	19 8	23 4	23 8	15 0	19 8	22 8	22 0	12 0	
										JHANSI.
21	Jalaun, ...	18 8	20 0	21 8	13 0	20 0	20 0	27 0	14 0	Wheat, ... 18 10 21 1
22	Jhansi. ...	17 14	22 9	19 18½	13 0	20 6	30 0	22 15	10 11	Barley, ... 21 7 27 5
23	Lalitpur, ..	19 8	24 0	23 0	10 0	22 12	32 0	27 0	9 0	Gram, .. 21 4 26 10
24	Cawnpore, ...	17 8	21 8	20 8	14 0	20 8	24 8	25 0	14 0	ALLAHABAD.
25	Fatehpur, ...	16 8	19 8	21 12	14 8	19 4	24 0	26 4	13 8	
26	Banda, ..	15 10	18 2	19 14	13 6	20 0	22 12	26 4	15 0	Wheat, ... 16 1 19 0
27	Allahabad, ...	14 0	17 4	18 8	14 0	18 0	23 0	22 12	15 8	Barley, ... 19 4 23 0
28	Hamirpur, ...	15 12	17 0	19 0	11 12	18 0	20 4	23 10	14 8	Gram, ... 20 2 24 10
29	Jaunpur, ..	16 15	22 4	20 2	14 13	19 1	25 6	24 0	14 2	
										BENARES.
30	Gorakhpur, ..	14 0	16 10	14 14	12 12	19 4	25 6	17 8	14 4	Wheat, .. 14 6 17 8
31	Basti, ...	13 12	16 4	15 0	12 3	19 6	23 12	19 6	14 11	Barley, .. 18 0 23 5
32	Azamgarh, ...	14 12	19 3	17 0	14 0	17 11	24 6	19 3	13 5	Gram, ... 17 4 20 3
33	Mirzapur, ...	15 0	19 8	20 0	14 0	15 0	23 0	21 0	13 0	
34	Benares, ...	14 0	18 0	19 0	11 0	15 12	21 8	21 0	13 10	
35	Ghazipur, ...	14 13	18 10½	18 10½	12 14	18 0	23 3	23 3	11 9½	

The division average shows that scarcity was felt in greatest measure in the districts of the Benares division, though in some districts of the Allahabad division also an approach to famine prices was established in the first months of the year.

79. In the Basti and Gorakhpur districts, where the scarcity was greatest, the monthly rates from January to June may be quoted with advantage, as follows :—

TABLE No. V.

Quantities purchasable for one Rupee.

1874.	BASTI.					GORAKHPUR.				
Month.	Wheat.	Barley.	Juar.	Gram.	Arhar.	Wheat.	Barley.	Juar.	Gram.	Arhar.
	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.
January, ...	13 10	15 0	16 4	12 8	11 14	12 4	13 2	12 4	10 8	12 0
February, ...	12 8	15 0	...	12 8	11 14	12 4	13 2	14 14	12 4	11 4
March, ...	15 0	20 0	...	16 14	13 12	14 11	15 12	14 0	14 0	11 4
April, ...	14 1	18 12	...	16 4	14 6	14 0	19 4	...	14 14	13 8
May, ...	13 12	16 4	...	15 10	14 1	...	...	...	...	...
June, ...	13 12	16 4	...	15 0	12 3	14 0	17 0	...	14 14	12 12

The table shows that during all these six commencing months of the year all the principal articles of food were purchasable in these two districts at almost famine rates. The table IV. of prices in all districts will show that wheat was dear everywhere throughout the year; but barley and gram were purchasable in almost all the districts at a fair rate, and the millions of poor people eat very little wheat indeed. Barley, or barley and gram ground together, forms the staple article of food in this province, and the cultivators talk of wheat as though it were gold, and say it is all sold to enable them to pay the revenue. When barley and gram come to be almost as dear as wheat, selling at a high price, then the people are threatened with famine. That was the condition in Basti and Gorakhpur in January and February, 1874, and many thousands of persons were employed on famine works established by Government there, and I think it is likely many persons were saved from death by starvation during the first months of 1874, by the timely measures of relief set on foot.

As the season advanced and proved favourable for agricultural purposes prices fell, and the distressed people found remunerative employment in the fields. If the season had proved unfavourable, it is certain that a condition of famine would have been established not only in Gorakhpur and Basti, but in the eastern districts generally.

CHAPTER IV.

INSPECTIONS OF SANITARY COMMISSIONER.

80. During the past marching season, which owing to my absence in England on furlough was somewhat shortened, I have inspected the principal centres of population in the Duab and some of those in Rohilkhand.

In obedience to orders received on this subject, I am unable to report here at length upon the condition of the towns inspected, but I trust a few words may be permitted with reference to a few of the towns of greatest importance. For I think a short printed record has greater power for good result, than much verbal communication or written remarks made at the time of inspection.

In this record of inspections I will be guided by a desire to combine brevity of report with a clear description of results, and will include in it only mention of such towns as have appeared to me to very much require special mention.

81. CAWNPORE.—Inspected on the 12th December. The public latrines, 20 in number, much frequented but very offensive, the use of dry-earth being neglected. This condition especially noticeable in the four masonry latrines. In the 16 earth-made latrines the condition is much better. Nothing has yet been done to improve the vast broken site south-west of the city, which is utilized as a place of deposit for sweepings and impurities generally, whereas it might and ought to be improved into a wholesome precinct. Bricks are still made there and excavations increase. In Hirarmand Purwa Mohalla are deep, open, dangerous drains, and near to them an excavation about 40 yards wide and 10 feet deep—Munshi-ka-guraya,—a ragged hole of unwholesome appearance which ought to be filled up. City sweepings are collected in it by the contractor for ultimate removal. The new great drain of this city was seen to be embanked with earth near its termination, said to be done expressly to cause stagnation of the sewerage and bring about deposit of earth and impurities it contains. The deposit, seen to be about a foot thick in the bottom of the drain, will be dug out and removed. When dug out it is bad-smelling and makes good manure, but its collection in this way is not likely to improve the sanitary state of the city.

The surface cleanliness everywhere is carefully effected, but the resulting impurities go to increase the bad state of the great broken site between the city and the Railway line, making there a vast heap which the contractor will sell for removal. I think an income of about Rs. 600 a year results from the present operations in regard to sweepings and brick-making. I think it would be far better to forego that amount of gain—a matter of little importance to a city with so large a municipal revenue as Cawnpore enjoys. The excavations, becoming now so extensive as to be locally mentioned as the "jhil," being gradually filled up with the sweepings, covered over with a layer of earth, and planted with trees. The sanitary gain would be very great. I have on several previous occasions insisted upon the necessity for this improvement; as yet I see no signs of an endeavour to encompass it.

82. ETAWAH.—Inspected on the 22nd of December. I mention this town here only to record the opinion that it is in all probability the best kept and most carefully managed of any in the province. From previous experience I was inclined to this belief, which this later opportunity confirms. In regard to surface drainage and cleanliness more could not be desired, and in regard to these matters attention reaches the very smallest lane or street. No doubt the situation of the town, near to and in some measure around ravines, helps greatly in this matter; or rather makes its accomplishment comparatively easy. But I believe ever since the commencement of Mr. Hume's era of improvement at Etawah, the local authorities have been busy and earnest about bettering its sanitary aspect, and especially the late Mr. Low—who officiated for me during my temporary absence in England—did much, when resident at Etawah, to bring the town to its present satisfactory state.

83. AGRA.—I inspected this city on the 28th and 29th December, and found it well kept in regard to all the more public portions. Yet there are places in this great and important site which much require improvement. For instance on the Kaji Para road, in the Multola nála, a great bad-smelling heap of sweepings, perhaps 10 feet high, was seen collected with much of filthiness, and bones and rags intermixed—all thrown down there to be carried away by flowing rain-falk The nála in question commences hereabouts, and the commencing portion between two bridges which span it there might with great advantage be permanently filled up and planted with trees, a small drainage way being left in the centre. Near the same part is the principal slaughter-house of the city, which also very much requires improvement, especially in regard to drainage and the removal of the blood spilt, which is considerable. Twenty-six bullocks were slaughtered there on the morning of my inspection, and the resulting blood was collected in a short ditch outside the enclosure wall, the ditch being embanked to keep the blood there, to dry up in some measure out of sight.

84. West of the slaughter place is the abkari godown or Government distillery, well situated on rising ground, but the surrounding site broken, filthy, heaped with ashes from the distillery, the collections of years. The ashes would be valuable if used to fill up the commencing portion of the Multola nála, and the sanitary aspect of Agra would be much improved by the more careful management of the places mentioned, and of the site generally of the Dhole Khar muhalla, in which they are situated.

85. In Luhargaŋj and Namak Mandi muhalla many neglected cess-pools were noticed. In Pipal Mandi at least one remarkably filthy drain was noticed passing in a narrow space amidst the houses, and several much neglected spots and cess-pools. This Pipal Mandi is a very important part of the city, containing many large houses built on a low site bordering a nála which leads down to the Jumna, and it very much requires a better management.

86. I noticed an important improvement in this city well worthy of imitation elsewhere. It consists of urinals, being stone-built cells behind a facing wall, placed in crowded portions of the city and much frequented. Their success, from a sanitary point of view, will depend upon the perfection of the arrangements for the removal of the urine collected.

87. ALIGARH.—Inspected on the 7th January. City admirably kept in all respects. Very little as yet accomplished for the improvement of the great line of water-holes which bound the site southward and westward. New town hall completed just outside the Aligarh gate, and the surrounding site levelled and planted with trees—a great improvement. A wonderful vegetable market, consisting of three triangles of gothic arches, building on the triangular-shaped piece of land facing the gateway. An inner, central, and outer triangle of gothic arches, flat roofed. Rather church-like within, for Hindu and Muhammadan use, but thoroughly utilizing the land available. The Muniyaganj muhalla contains much broken surface, and appeared to be the only neglected part of the city, yet it is an important muhalla and populous.

88. KHÚRJA.—Inspected on the 11th and 12th of January. All the town and all its surrounding site inspected with much care ; for during the past autumn months in Khúrja there has been great distress on account of fever disease.

My opinion as to the probable cause of this has been recorded in the second chapter of this report. I will add here a few words of further explanation on this subject.

89. The town site is naturally low, and the spring-level used to stand at this time of year (January) at about 15 feet from the surface. Now it was measured at seven feet in my presence, and the soil is damp ; the dampness rising into the house walls. Raised earthworks have in recent years been constructed about or around the site ; Principally the great trunk road, which has a branch on both sides of the town ; the

Hulaspura rájbaha of the canal which skirts the west border of the site ; another rájbaha which courses eastward of the site ; and again further east the great canal itself. Southward of the site the land is raised in sandy hillocks which carry the unmade roadway to Munda Khera. In the angle formed by this naturally raised road and the eastward rájbaha, a very great amount of water has collected, forming a jhíl apparently about a mile square now ; formerly, as I have seen, it was much less.

90. I know the existing intention is to endeavour to drain the site to the Karwan Nadi. I hope it may be possible to improve the nadi bed itself, so that it may be able to effectually carry away the increase of water which will flow to it. I desire very earnestly to urge this point on the attention of the officers of the Irrigation Department in whose hands these drainage operations lie. I know they are very anxious to effect all that can be possibly done, with the means at command, to thoroughly perfect the Doab drainage line, and I hope will take into favourable consideration the question of improving the Karwan Nadi, so that a clear stream of water may always run in it for discharge to the Jumna below Agra.

91. If in this or any other report from this office words have occurred which may bear the appearance of imputed blame as regards the operations of the Irrigation Department, I desire to state that such spirit is far from my mind, and to record the opinion, founded on lengthened observation and notice of results, that the operations of the Irrigation Department have conferred a condition of permanent enrichment and improvement on wide tracts of the Doab country such as to make me think always of the Doab as probably the most valuable country of the British possessions in India. I have recorded this opinion more than once before, and I yield to no man in admiration of the absolute reality and effectual working of the means provided to effect this great improvement.

92. As a sanitary officer, seeing much of the people in their homes, I cannot discard from my mind the belief that in some places an increase of moisture in and on the land has led to disease, not to the creation of a new form, but to an increase of disease existing in all historical times. Indeed, I think it is likely that had no Irrigation Department existed, I might have had to urge the improvement of the natural drainage channels of the Doab, but I feel sure I cannot err in urging the question now. The officers of the Irrigation Department have done much already in this direction, and are desirous of doing all they can, fully recognizing that irrigation necessitates drainage.

Nowhere is this question of drainage more urgent than at Khúrja. Much rain water in every year lies stagnant for many days at a time on the village lands north of the town, and when this water is directed to the Karwan Nadi, I fear a permanent increase of moisture in the village lands bordering the nadi as it runs through the Chandaus, Khair, Gonda, Iglás, Mursán, and Saidabad mortuary circles. I trust the officers of the Irrigation Department will be able to prevent this by providing means of outflow to the Jumna from end to end of this unwholesome nadi.

93. The conservancy of Khúrja was found to be well effected. It is a town which has been very well managed under municipal authority for some years past. For an account of its general appearance and management I would refer to page 61 of my report for 1872.

At this my last inspection I saw nothing pointing to a neglect of cleanliness or of good town management generally. The inhabitants were sadder looking and the town quieter than formerly,—changes attributable to the effects of the period of death and fear which characterised the autumn months of 1873. On all sides the evidence was to the effect that fever disease has generally prevailed. The old and young, strong and weak, had died, and that sometimes a difficulty occurred in procuring the services of healthy persons to carry out the dead, so general was the sickness. Nor could wood

at times be found in the town for purposes of cremation, so great had been the consumption for that purpose.

94. The symptoms of the disease were those of remittent-fever, and the sick persons generally suffer from delirium before they died. Enlargement of the spleen was found in several persons. All the resident Government officials suffered, and the tahsíldar, Saiad Muhammad, a good and a very intelligent man, whom I knew well, died of it. The officiating tahsíldar who came to take Saiad Muhammad's place was attacked and still suffers from attacks of fever of a remittent type. The inhabitants blamed the changed nature of the drinking-water and the permanent dampness of the site as the causes of their sufferings, and I believe correctly; certainly the change from a fairly dry surface everywhere to a general condition of dampness was apparent and striking.

95. The sanitary requirement of the town is drainage of the site, thorough and effectual subsoil drainage to the extent of lowering the spring level in the wells.

96. BULANDSHAHR.—Inspected on the 16th January. The town found to be well managed and kept in all respects. The mortality from fever has been excessive during the past four months. The most noticeable feature in regard to change as regards the site is the increase of moisture in the wide khádir bed of the Káli Nadi which skirts the town eastward, and the dampness of the ground and of the house walls in the lower parts of the town, denoting a serious rise in the spring level there. This rise in spring level always causes a change in the nature of the water which the wells contain, and as the water of the wells in the high parts of the town is brackish, all the inhabitants drink of the water in the lower placed wells. Indeed, they drink mostly the water of the wells situated on the margin of the khádir land of the nadi, where the rise of the spring level has been greatest.

97. I think the only measure likely to improve the sanitary aspect of this town is the deepening and cleansing of the nadi bed, so that a stream of fast-running water shall always pass in it, and the khádir land be brought back to its former state of perfect dryness during eight months of the year. This same condition of unhealthiness affects many centres of population of the nadi line; for example, in the Bulandshahr rural circle, of five villages of greatest mortality in 1874, two—Malagarh and Dhakauli—are bordered by the nadi. And I think in all years mortality increases in the centres of population so situated, and I think from the same cause—increase of moisture in the khádir land. A very great and pressing requirement is the improvement of the nadi in all its course.

98. GULAOTHI.—Inspected on the 20th January. It is a town in which mortality from fever has been excessive during the past year, due, I think, to the excessive amount of moisture which collects in the excavations which border the town, and to increase of moisture in the soil generally. Something has been affected to remedy the former during the past year, but the endeavour should be continued. The town was found to be clean and fairly well swept.

99. The inhabitants retire to a distance of 500 paces from the habitations. It is a town especially of Saiads, the principal of whom has just completed the building of a fine new mosque. The principal way has been recently laid with kunkar and drained; and altogether I noticed many evidences of recent improvement in the town. But the smaller ways are still mere drainage channels for excessive rain-fall, and the general aspect is that of a town of a minor importance.

100. BHUTÁNA.—A large populous village near to Gulaothi, and of considerable importance; inspected on the 20th January, and mentioned here as specially worthy of attention. A *bhatachara* village; the land divided amongst 1,800 petty holders, and the population consequently very numerous; the habitations crowded.

The mortality was very great here from fever during the past year. It was noticed to be a very filthy village, with many manure heaps amidst the crowded houses which fill all the village site, there being no clear precinct between the habitations and the crops, and consequently no space to store manure upon outside the actual village site. The ways of communication narrow and very low, like deep drainage ways. Three great excavations collect the rainfall, and when they overflow the water finds its way with difficulty in a southerly direction towards a *jhíl* about a mile distant. There is no doubt that in the rainy season at times the village site is pretty generally flooded. The appearance of the site shows this, and the general complaint of the inhabitants was to the same effect. I think the great necessity here is efficient drainage, and I understood that a cutting is to be provided to the jhíl for that purpose. The extraordinary filthiness of the place, too, merits attention, and the filthiness is increased by reason of the chamars' quarter being in the midst of the *abadi* or habited site.

101. HÁPUR.—Inspected on the 21st of January. This town has been much improved since I last inspected it, especially in regard to drainage of the site and to a better conservancy.

A really considerable amount of good work has been effected, and the sanitary aspect of the place much changed for the better.

The general health of the inhabitants has been very good during the past year.

102. MEERUT.—Inspected on the 25th of January. City found remarkably well kept in all respects. Cleanliness everywhere very real, and thorough in the more public portions. The principal drainage way, or Ganda Nála, has been recently paved with brick, to its great improvement. A marked feature of this city in its more crowded portions is the system of quite shallow drainage ways in the centre of the narrow lanes. These drains evidently carry the fluid impurities of the houses to the main drainage channel, and so they are removed slowly along the newly-made Ganda Nála. This nála, where it ceases to be brick-paved, is continued under the Bulandshahr highway, to end eventually in a commencing branch of the Káli Nadi. The drainage stagnates in the nála and causes a very perceptible nuisance where it passes under the highway. I think the municipal authorities should undertake the improvement of this nála throughout its length.

103. At this inspection I noticed that the Abu nála, which is the great rain-fall drainage channel of the Meerut site, is fast becoming a nadi, with a quite extraordinary increase of water flowing in it in some parts, and almost stagnant as wide pools in others. This is due entirely to the very serious rise in the spring level of the Meerut land during the past few years. And the condition is to be remedied, at considerable expense, by the deepening and cleansing of the nála down to its junction with the Kali Nadi. I believe the result will successfully prevent any further rise in the spring level, if not bring about its lowering in some considerable measure. If that result does follow, the monthly returns I receive will show it, and the proper method of dealing with any country of much raised spring level will have been established.

104. PILKHUWA.—Inspected on the 27th January. Mortality from fever in this town has been excessive now for some years past, and during the year 1874 the mortality from that cause was very great, the ratio being 78·2 per 1,000 of the population. The site is low and the drainage very imperfectly effected, the rain-fall stagnating in large water-holes in different parts of the site, but especially to the western end. During the past two years a very considerable amount of improvement has been effected here. A raised and well-made way of entrance to the town from the highroad has been provided. Provision has been made for the drainage of the overflow of the great *khera* or western water-hole, and a cutting made from the eastern margin of the town in the direction of a Chhoiya or commencing branch of the Kali Nadi, which

passes about four miles east of the town, and to which a canal escape, now apparently disused passes just south of Pilkhuwa. The lands of Pilkhuwa are in part irrigated from the canal, and rájbahas which impede the outflow of rain-fall exist on all sides of the town site, but at considerable distance from it. The spring level has risen several feet, and in one well, at this inspection, it was measured at ten feet. In February, 1872, I found the water of the wells generally at about 20 feet from the surface.

105. Excessive mortality from fever is not a new thing at Pilkhuwa, as may be seen at page 54 of my report for 1872. The market-place at this town, too, has been much improved, its surface raised and made,—a notable change for the better, quite changing the aspect of the town in that part. I think, however, that nothing less than the improvement of the drainage to the extent of preventing the stagnation of rain-fall anywhere over the surface will effectually remedy the tendency of the inhabitants to suffer from fever in the autumn months. At the time of my inspection the people appeared to be in good health, and fever was not prevalent. The cleanliness of the town was seen to be improved, but in the outskirts, everywhere, filthiness abounded. Near to Pilkhuwa is an important village called Khera, in which also a great mortality from fever was recorded last year. I noted its condition as follows:—

KHERA.—A large Hindu village south of Pilkhuwa and divided from it by an old canal escape made in 1855, but not in use now apparently. Houses mud-built, as the name implies, on a well-raised site; village very filthy in all parts, but especially in southern portion, where chamars and sweepers live—an altogether abominable portion, where I saw the partly devoured skeletons of five bullocks and other like signs of neglected conservancy thick over the ground, amidst the houses or quite near to them, a place of stench and general abhorence hard to match anywhere in this province. Noting this, and thinking it might be a cause of contagious fever, I made careful enquiry of several persons concerning the symptoms of those who had died of fever in the past year. In all cases I received an account of fever with a cold and hot stage, and afterwards a remission, death occurring as a rule after several attacks of that nature.

106. In the northern outskirt is a great shallow excavation about 200 yards square, which overflows in the rains, but contains little water now. In the western outskirt is a vast excavation about 500 yards long by 200 yards wide, and containing about 6 feet in depth of water.

The result of such increase of water in the neighbourhood is that the spring level has risen. Now the water in the wells around the village stands at ten feet from the surface; in the rains it stands at five feet, and all the subsoil is moist to the surface. Even in the high village site the moisture has risen, so that, digging anywhere in the site, the ground was found damp from the surface downwards. This dampness was specially noticeable in a wide excavation just made for the sinking of a new well.

Of eighteen boys seen at the school-house, ten were found to have enlarged spleens. I think if the site around Khera could be relieved of its stagnant water, its people would be relieved of their tendency to fever disease. But certainly the matter of conservancy also very much merits attention.

107. SARDHANA.—Inspected on the 2nd February. A commencement of improvement was made here during the past year by an attempt to fill up a portion of the extensive excavations which hem the town on its east and south borders. I understood that Rs. 800 had been expended for this purpose, but very much more must be done before the chain of excavations which exist in those borders can be brought to a satisfactory sanitary condition. The site of the Roman Catholic Cathedral is in good measure surrounded by these excavations, and the land there has certainly been cut about and excavated in most irregular fashion. The margins of these excavations

are frequented as latrine places, much of sweepings and impurities are thrown down into some of them, and the general aspect is very depressing and unwholesome.

Measures have been taken to prevent their overflowing by the digging of a cutting from their southernmost extremity to reach a nála near, which goes down to the Hindan. But the cutting winds and is much broken.

This unwholesome region might without difficulty be much improved, but not without a considerable expenditure of money. The town itself was found well kept, but nothing has yet been done to level the small plain which exists on the west border, which contains many small excavations in which rain-water stagnates.

108. BHAINSI.—A large village west of Khatáuli; inspected on the 3rd February, and mentioned here because its sanitary aspect has been lately much improved by the making of an admirable and most efficient cutting, which leads from the extensive jhil bordering the village southwards to the local canal escape. This escape is a very deep excavation leading down to the West Káli Nadi. And this is the first instance that has come to my knowledge of the untilization of a canal escape for general drainage purposes. I think that the canal escapes might be often utilized for such important purposes, to the very great advantage of many centres of population.

109. MUZAFFARNAGAR.—Inspected on the 4th February and found to be improved in many respects. The drainage of the civil station and the railway premises has been effected to the Káli Nadi with a great amount of success. Several streets of the town have been paved with brick. A system of trench latrine has been introduced with much advantage. A small municipal farm of 2½ acres has been established for the utilization as manure of the impurities removed from private latrines and cess-pools. The land for this purpose is granted rent-free by Odey Rám, a member of the municipal committee. The town in all parts was seen to be admirably conserved, a well-kept pleasant place to inspect. But its site, so close to the Káli Nadi, in the khádir bed of which the spring level is at the surface, with outflowing springs in places, must make fever a prevalent complaint. In a town so situated it is very important that the wells principally frequented for drinking-water on account of its known purity should be carefully maintained. Lehsar Ali's well at the end of the principal bazar is a well of that kind in which the water used to be very good and much drunk. Now its brickwork is all broken away at the bottom and the water is bad. To rebuild this well would be a popular proceeding and a sanitary improvement about which the municipal authorities need have no doubt. A new circular ganj, to be called Wyerganj, is being built on a waste piece of land bordering the high road: and certainly Muzaffarnagar is improving both in its sanitary aspect and general appearance, being a well-managed town in all respects.

110. DEOBAND.—Inspected on the 8th February. A Muhammadan town, showing signs of increasing prosperity, with a fine new mosque just completed. The public thoroughfares in some places much improved since last inspected. The matter of conservancy much neglected, in some parts not even attempted; a rare thing to see now in a town provided with municipal authority. Sheep seen to be feeding upon the impurities in the public latrines, which consisted of an enclosure with frail bambu fence, the fence broken down or lying at all angles. The most important sanitary requirement is drainage of the land about the town, where much water stagnates in the rainy season. Such drainage as exists is in the direction of the "Kaula Jor," an extensive excavation on the south-east border of the town, and when the "Kaula Jor" overflows, all the town precincts on that side are flooded. To remedy this state of things, it is in contemplation to provide for the overflow by a drainage cutting from the further side of the "Jor" to a natural drainage channel of the neighbouring country. If this cutting is thoroughly well made and maintained, it should provide the remedy required.

111. SAHARANPUR.—Inspected on the 10th and 11th of February. In this city there is, I think, great evidence of sensible endeavour at sanitary improvement, the work of recent years. It was a city noted for disease, the result probably of excessive moisture in and about the site. It is now a city in which disease is not excessively prevalent, the general health of the inhabitants being much improved. I think a considerable measure of this improvement is due to the improved sanitary condition of the town. This improved sanitary aspect is apparent; first, in the great Rai-wala water-hole, by the levelling of which about 80 bigahs of dry cultivated land in the western outskirts have replaced a similar extent of stagnant moisture,—a noteworthy and altogether excellent change, and a most valuable example to many other towns which call for like benefit. Second, in the clearing and deepening of the Pandhoi Nadi on the eastern side of the town, by which a wide clear running stream, constantly tapping the spring level and removing a great quantity of water from the site, has replaced a long strip of almost stagnant moisture lying on a deep bed of black filthiness and weeds. The borders of the Nadi have been raised, levelled, and planted with trees, the deepening and cleansing have been continued for a considerable distance beyond the city site, and the work altogether has been done effectually, with a change for the better to the neighbourhood—and the nadi passes amidst the habitations of the city—not easy to record correctly in words of sober report, but certainly great. Third, the deepening and clearing of the Craigie Nala in the southern outskirt, so that it also has now a wide stream of clear water due to great springs bursting up in places of its bed, and helping much to keep the four or five feet in depth of dry soil on which the townspeople live free from moisture. Fourth, the making of the city road main drain for the removal in some measure of the water which used to stagnate in the Rai-wala water-hole. It is an open brickwork drain about four feet deep, running across the western portion of the site to end in the Craigie Nala, and is intended to carry away excessive rainfall only. In some places springs have burst through its brick floor, which shows how near to the surface the spring level is, and how necessary these drainage works are. Fifth, in the northern outskirt a new cutting of considerable depth, to intercept and remove to the Pandhoi flowing rainfall which used to stagnate in the great Rai-wala water-hole and in the land adjoining it. Sixth, in the drainage of the city site proper. This has been effected in several places, so that it does not seem possible that rainfall can stagnate anywhere; but I think something more is required in this direction, and that the now improved means of removing flowing moisture might be utilized to the extent of providing that the soiled water of the many gutters which exist in the lanes and streets should be carried away from the site, instead of running, as it does in several places now, to stagnate in waste places amidst the houses. Provided latrine impurities are kept out of the gutters, I see nothing to prevent the removal of their contents by way of the Craigie Nala and Pandhoi, only the gutters must be continuous, on a good plan and level, and not end, as now may be seen for example in the midst of the city, in a blind ditch which slowly empties itself over a low-lying piece of land called Nanu Docteur-ka-Jor. Conservancy was noticed to be neglected in some parts of the city, but as a rule this matter is fairly well attended to, yet nowhere with the perfection and reality in out-of-the-way places which characterize such towns as Etawah and Muzaffarnagar.

112. DEHRA.—Inspected on the 17th and 18th of February. Town on a well raised site about the centre of the Dun site, admirably drained by deep Nalas, especially on the west side. The water in such wells as exist stands at about 150 feet from the surface, and the town is supplied with water brought from a hill stream, a distance of several miles, by means of an open channel. I saw the town after very heavy rain, which is not a favorable time to permit of just conclusions. But I think it is well kept, an important town of many well built houses and well made principal thoroughfares.

It is esteemed by the people mostly on account of its being the place of residence of a famous Mohant or high priest of the religion of Nanak Shah, and many people, especially from the Punjab, attend the annual fair which occurs in March. The fair is

held in the small plain which fronts the Mohant's temple, and the great flag of the Mohant is unfurled during the fifteen days of the fair. It is known to Europeans principally as being on the highway from the plains to Mussooree, although too a considerable and influential European community reside near to the town, but especially on its northern border and along the high road to Rajpur at the foot of the hills, from the neighb urhood of which the artificial water-supply is brought to the town.

A considerable trade, especially in corn, centres in the town, which is frequented by many traders, many even from as far off as Cabul. An admirable sarai for their accommodation was provided by Mr. Thornhill some years ago, and altogether is an important centre of population and well worthy of sanitary improvement. It possesses a municipal government with a revenue of about Rs. 3,000, derived from a house and land tax.

The public latrines are well placed in the outskirts of the town, but require repairs and an improved management. The resulting impurities at the principal place of this kind have been buried for the past five or six years in pits dug in a small space of ground adjoining. They should be buried in trenches of land to be afterwards cultivated. A more accessible public latrine is required for the use of the many travellers who frequent the sarai, who made great complaint on the score of having to go about a mile away to reach the latrine they were ordered to frequent. Perhaps this in some measure accounted for the filthy condition of the intervening Nala, which is the principal drainage channel of the site.

The great necessity of Dehra from a sanitary point of view is a better water-supply. The water now carried through the town and consumed by all the inhabitants may be, and probably is very *good* where it comes out of the hills; but in its passage to the town and its distribution in open channels amidst the habitations it becomes impure. The surface drainage mixes with it in large quantity at times of rainfall; for example, the ganj surface is drained deliberately to the nearest water channel. At all times something of impurity is finding its way into the water, but in time of great rainfall the channels fill to the brim with a turbid stream, and for days together, as I saw at the time of my inspection, the water is unfit for human consumption. I think a good and sufficient supply of drinking water could be found at a place called *Nala Pani*, some three miles distant from the town, but the essential element of success is that it should be carried after collection, and distributed in iron pipes. From its situation Dehra might be expected to be a very healthy town, but it is not so, on account of the prevalence of bowel diseases. It is probable that a pure water-supply would provide a potent remedy or safeguard against these complaints.

113. BIJNOR.—Inspected on the 27th February, and found to be a remarkably well kept town, which has been improved in many respects since I last saw it. I mention it here especially to call attention to a system of public latrines, in the form of sarpat plantations, which has been established here. There are six plantations in all, which are much frequented, and make, I think, popular places of retirement. The attached sweeper is furnished with a hoe with which to bury impurities as found. The sarpat in clumps provides the necessary privacy, and the people sit inside at any place they may please to select. Only one objection was raised as to the absolute success of these places, which was that the sarpat harbours snakes in the rainy season, and then the people dread to frequent them. This is probably a valid objection, but for the eight months of dry weather the plantations are frequented regularly by great numbers of persons.

I noticed here too an admirable form of brick for paving purpose; hexagonal in shape and six inches thick, which, when well set in lime, make admirable and durable pavement,—far better than the ordinary native brick pavement. I understood that Mr. Knight, the Civil Engineer of Rohilkhand, introduced these bricks at Bijnor.

114. MORADABAD.—Inspected on the 5th of March and found to be much improved in regard to paving, cleanliness, drainage, and latrine management. Indeed, in regard to these important matters a very great change for the better has been effected at Moradabad, which when first known to me was a very much neglected city. The city is extending; many new shops, some of remarkably good appearance, are growing up, and it seems a very good thing that, with increasing importance, a better management should exist.

The facilities for thoroughly draining the city site are very great, as the Ramganga khadir some 15 feet lower than the level of the site, touches, and almost formst part of it on the eastern border, and all the site in that direction drains very thoroughly to the khadir.

At the northern border is the Sakkatua Nala; a Nala of level sandy bed, which runs down to the Ramganga, and is an admirable drainage channel for excessive rainfall.

Unfortunately this Nala is utilized for other purposes, for at Galla Kata mosque a drainage way comes out to join it, and carries a considerable amount of sewage to it. This sewage stagnates in the Nala, producing an unwholesome nuisance, very perceptible along the road of entrance to the city in that direction. I think measures should be taken to remedy this state of things. The latrine and other impurities are buried in about an acre of land within a walled enclosure called Lal Bagh, situated in the eastern border of the city. They are buried in cell-like pits about four feet deep, and after two years of burial are dug up again to be sold by auction as manure. The impurities in question should not be buried in large quantities in one place, and should not be afterwards dug up or disturbed. They should be buried over a widespread surface in shallow trenches, and the surface be afterwards cultivated as soon as may be possible.

Dhuria Tal, a large unshaped excavation in the midst of the city, was noticed to be in much better condition than at my previous inspection of this city, and a considerable part of its bed is being brought under cultivation. This is a great improvement, and will eventually result in raising the bed in some places; but so long as the large enclosure called Bagh Taveli, which adjoins the excavation, is deliberately drained to it by means of the existing large square drain, Dhuria Tal will remain a fruitful cause of disease almost in the heart of the city.

115. BAREILLY.—Inspected on the 12th and 13th of March, and found to be little changed from its condition as noticed at previous inspections. Some important work has been done for the improved drainage of the city site, both in a northerly and southerly direction, by the paving of small Nalas which pass in those directions. But the drainage lines, as a rule, seem to end in ditches just outside the city boundary, and these ditches were seen to be very filthy from the stagnation of impurities in them; also in some parts of the city large masonry drains were noticed to contain much black, bad smelling, stagnant filth. The surface everywhere was seen to be well kept, and the sweepings must be carried away regularly. I regretted to notice that the appearance of the main thoroughfare, Inglisganj, which used to be one of the best looking streets in the province, had quite lost its character in that respect,—a result of neglect on the part of the owners of the houses, which appeared to be in bad repair generally, and ruinous in a few instances. Perhaps they were flimsily built at first, being a work of improvement effected soon after the re-occupation of the city in the memorable mutiny times. The public latrines are well situated in the outskirts of the city, and appeared to be much frequented and well managed. In the northern portion of the city the rainfall drains towards a chamars' tank there. This tank is a ragged water-hole of some extent, and in former years an endeavour had been made to provide for the removal of its overflow by means of a tortuous ditch winding through the fields to reach a natural drainage way on the north side of the city. I think it would be a considerable sanitary improvement to improve and straighten this way of outflow.

116. JELALABAD.—Inspected on the 19th of March. A town of the Shahjahanpur district, of little importance, but containing a population of about 8,000. It was noticed to be fairly well kept, but collections of sweepings, being manure heaps, were seen within the habited site in some parts. The rainfall drains in greater part to the Ram Tal, a large water-hole in the north-eastern outskirt, and to Sukhya Tal in the eastern outskirt. These receptacles for rainfall drainage drain to the Gonda Nadi, a branch of the Ramganga. The means of communication between the water-holes and the Nadi should be perfected, as defective drainage, during times of heavy rainfall, formed the subject of complaint during my inspection. This defect is apparent mostly in the eastern and lower portions of the site, and I think the more perfect drainage of the excavations found there will provide the necessary remedy, and be a sanitary work of some importance to the townspeople.

117. FARUKHABAD.—Inspected on the 22nd of March, and found to be well kept in all respects, with the exception of one place, the Mittu Kucha, Kattra Ahmadganj. The deep open drains there were very filthy, the filth being banked up to keep it out of sight. The Sadhwara muhalla, formerly noted for its filthiness, was seen to be much improved in respect to that matter. The drainage systems, for there are several, were, with the exception above noted, seen to be in good order. The precincts of the Palra tank have been much improved, and an important change in regard to the better sanitary aspect of the city site has been effected by the levelling of a considerable tract of broken land in the Fazl Inam muhalla, and the making of a shaped tank there in place of the broken hole which formerly existed. Of the land reclaimed, some is now brought under cultivation; a public latrine has now been established at the place indicated. I regretted to notice that the people seemed to prefer the neighbourhood of the growing crops as a retiring place.

Certainly in many respects this city has greatly improved in sanitary appearance since I first saw it. In appearance of prosperity it does not improve, and I hope the scheme of providing it with light railway communication may not fail of realization.

CHAPTER V.

SANITARY IMPROVEMENTS OF THE YEAR.

118. During the past year a conference of officers of several departments was held at Meerut, under the orders of Government, for the purpose of discussing the question of the late prevalence of fever in the Meerut and Bulandshahr districts of the Duab, and the best method of providing an effective remedy for it.

The meeting, which took place during the time the Lieutenant-Governor was at Meerut, was presided over by His Honor, and the opinion pretty unanimously arrived at was that the remedy most likely to be effective would be the more perfect drainage of the country in question.

A considerable discussion occurred in regard to the places where improved drainage was most required, and a great amount of information was arrived at in regard to that important point, especially by the evidence of the civil officers present, and by the statements of the Engineers of the Irrigation Department, much aided as to their comprehension by a series of maps on a large scale prepared for the occasion and hung upon the walls of the conference tent.

119. As the result, in some measure, of the conclusions arrived at, at the conference in question, the following Resolution of Government has been issued. From this Resolution it will be seen that the drainage of the Duab country in question is to be continued and vigorously effected in several directions; the large sum of Rs. 8,43,061 being set down as the amount required to effect all that is contemplated at present.

120. Perhaps the most important words of the Resolution are those which record His Honor's opinion that the drainage operations hitherto carried on with imperial funds only have been too limited, and that the larger measures required by the country shall, when imperial funds are not immediately available, be executed with provincial funds, the ultimate incidence of charge being left for fuller discussion. The result of this order will, I think, be the effectual carrying out of the schemes proposed, without the delay in regard to completion which characterized some of the drainage works known to be necessary in former years,—a delay in proof of which much evidence was afforded by the civil officers who attended the Meerut conference above mentioned.

"No. C477W., dated Naini Tal, the 26th April, 1875.

"*Resolution by His Honor the Lieutenant-Governor of the North-Western Provinces.*

"DRAINAGE.

"TOWARDS the end of the past year reports reached His Honor the Lieutenant-Governor of the occurrence of great sickness at Meerut, generally attributed to a progressive rise in the spring level, and to defects both of outfall and of internal drainage of the city and station of Meerut.

"Owing partly no doubt to heavy falls of rain late in the season, when the land was no longer receptive, the large marshes in the lower part of the Meerut district, in Bulandshahr, and Aligarh have overflowed in the last two seasons, and created inundations which have caused much injury, sickness, and mortality in the large towns of Khurja, Somna, and Koil, all of which, according to custom, are placed in natural depressions.

"In respect of Meerut, orders have issued in the Buildings and Roads Branch of the Public Works Department for the rectification both of the local drainage and of the outfall, on a project prepared by Mr. Howe.

"His Honor has visited Aligarh and Khurja during the past tour, and is satisfied that no time must be lost in preventing a recurrence of last year's disasters.

"Until now drainage operations have, with one exception,* been carried on in the Irrigation Branch with imperial funds only, and have been limited to the work which could be carried out by those means. But the condition of the country requires larger measures, and His Honor is pleased to direct that where imperial funds are not immediately available works shall be executed with provincial funds, leaving the ultimate incidence of charge for fuller discussion. The detailed surveys of the Irrigation Branch are sufficiently advanced to allow of the course of action for the relief of the large towns which are near the Ganges Canal being settled, in communication between Colonel Greathed and with Major Moncrieff, with the aid of the maps and information prepared by Mr. Dodsworth, Captain Wavell, Captain J. C. Ross, R.E., Captain Howard, R.E., and others. The execution of the necessary drainage is simple, involving generally only careful alignment and well-regulated digging, which can be commenced so soon as the contours are obtained and the areas of catchment basins (which determine the amount of water to be passed off) defined.

* Muzaffarnagar drainage.

"But departmental rules must of necessity be suspended. There is no possibility of getting the work done before the monsoon, if complete projects and estimates are required, as usual, before work is commenced.

"His Honor the Lieutenant-Governor, therefore, considering the extreme urgency of the case and the simple character of the works, has directed that Major Moncrieff shall be authorized to begin excavation, whenever, in whatever manner, and at whatever rate his experience and discretion may approve.

"Provided—

"That this authority is restricted to the works I. to XIX. specified below.

"That copies of all orders issued be submitted to Government for information.

"That regular estimates for these works be prepared and submitted as early as possible.

"The projects referred to in connection with the Ganges Canal are the following:—

"*New drainage works to be taken in hand before the rains.*

"I.—Improvement of the drainage of Jansath, Tisang, &c., zila Muzaffarnagar.

"These drainage lines form the sources of the East Kali Nadi. They have been partially dug out, but they will now be widened and deepened, so as to profit by the deepening of the East Kali Nadi described below.

"II.—Outfall for the catchment basin of the Abu Nala.

"The cuts which drain the basin will now be deepened and widened to meet the increased depth of the Kali Nadi.

"The deepening of the Abu Nala, of the Meerut diversion cut, of the East Kali Nadi as far as Kawal, and the internal drainage of Meerut City and Cantonment devolve upon the Provincial Branch of the Public Works Department.

"III.—Improvement of the East Kali Nadi from Kawal down to a point about 12 miles below Bulandshahr, where the river takes a direct course. Beyond this point no works of amendment will be carried out in the channel of the river during the present season.

"IV.—The Somna drainage, for carrying into the Karon Nadi the water which now floods the town and suburbs of Somna in the Aligarh district.

"V.—The drainage of the lowlands lying around the village of Gadarjuda, in the Saharanpur district,—a work much pressed by the Collector.

"VI.—Extension of the Rehi drainage cut upwards towards Chapar, in the Muzaffarnagar district.

"VII.—The completion of the portion of the Shaikhpura drainage scheme not yet taken in hand: this is in the Meerut district.

"VIII.—The Karauli drainage, a large and important scheme for draining lands lying close to the west of Meerut.

"IX.—Drainage of the large marsh in the village of Hasanpur, in the Meerut district, and the lands lying along the beginning of the Bulandshahr Branch Canal, in the Bulandshahr district.

"X.—Preparation of the Karon Nadi by the removal of obstructions, &c., to receive the Khurja drainage.

"XI.—Preparation of the Sengar Nadi in a similar manner to receive the Aligarh drainage.

"XII.—Khurja drainage into the Karon Nadi will be carried out by Captain Marindin and the staff of the division, reinforced by special officers, Mr. Atkinson, Executive Engineer, and Lieutenant Duperier, Assistant Engineer.

"XIII.—Aligarh drainage, likewise a very heavy undertaking. The drainage will ultimately be led into the Karon Nadi. Special officer, Mr. Thatcher, Executive Engineer.

"XIV.—Sikandra Rao drainage, falling into the Isan Nadi, will be carried out by Captain Howard, R.E., aided by a special Assistant, Lieutenant Cather, R.E.

"*Drainage works in hand to be pushed forward.*

"XV.—Completing rectification of the Sila Nadi, in the Saharanpur district.

"XVI.—Solani Khadir reclamation works, in the Muzaffarnagar district.

"XVII.—The Bhainsi drainage scheme, in the Muzaffarnagar district, to be finished.

"XVIII.—The Hawal drainage scheme, in the Meerut district, to be finished

"XIX.—The Baral drainage cut, partly in the Meerut and partly in the Bulandshahr districts, to be completed.

"In addition, Mr. R. Forrest, an Executive Engineer of experience, has been deputed to examine successively the Karwan, Sengar, and other streams of the Duab, in order to protect villages bordering the first from damage which might be done by the water which will be added this year, and to ascertain what treatment is necessary to constitute these streams effective outfalls.

"EASTERN JUMNA CANAL.

"Besides pushing on works in hand as fast as possible, *viz.*,—

"1. Datauli drainage,
"2. Dholapra drainage,
"3. Krishni Nadi improvement,
"4. Katha Nadi improvement,

"Mr. Anderson, Superintending Engineer, and Captain F. Home, R.E., have undertaken that the following new works, in connection with the Eastern Jumna Canal, shall be advanced as far as practicable before the rains :—

"5. *Shamli Nala.*—The town of Shamli will be protected by passing into the Salawa cut drainage, which at present comes down the Shamli Nala. Captain Home can undertake to protect the town.

"6. Drainage of the town of Kandhla and its neighbourhood.
"7. Drainage of the town of Baraut and its neighbourhood.
"8. Drainage of the town of Kirthal and its neighbourhood.
"9. Drainage of village of Alawalpur and its neighbourhood.

"The same powers have been given to Mr. Anderson as to Major Moncrieff.

"The following statements of financial requirements disclose the magnitude of the operations, which could not have been taken up with the vigour with which they have been attacked but for the opportune return of officers from Bengal. Seven special officers are employed on the Ganges Canal drainage and three on that of the Eastern Jumna Canal. An Assistant Engineer with his sub-divisional establishment and a body of a thousand labourers have been lent from the Agra Canal.

"From the latest accounts, there is reason to suppose that the anticipations of the month of January, regarding what could be done before the monsoon, will not be disappointed. On the large drainage lines in Bulandshahr and Aligarh timber bridges will be constructed for this year, but on the Eastern Jumna Canal works masonry structures will generally be built.

[*The statements of financial requirements are omitted here. The total expenditure anticipated is Rs.* 8,43,061.]

"The following is a summary of the principal facts brought forward at the conference and of other statements subsequently received:—

I.—Saharanpur District.

"(a.)—*Eastern Jumna Canal.*

"1. *Dholapra Drainage Cut.*—This cut was designed to drain Dholapra and Kumerhera jhils, which form the head-waters of the Katha Nadi, into the khadir of the river Jumna. The present channel is insufficient, and it was proposed to improve it by means specified in the orders of 1st June, 1874, Irrigation Department, which would, it was believed, cause the drainage to run freely. Objections have been urged to the details of the scheme proposed: they were considered in the Irrigation Department, and the orders are now being carried out.

"2. *Balpur Drainage Cut; Nanauta Drainage Cut.*—These are two cuts on the left of the canal, designed to take the waters of lands whose drainage has been intercepted by the canal across to the Krishni Nadi. In themselves they are not of much importance, but when the Krishni Nadi improvement scheme has been brought to completion, it is hoped they will work fairly.

"3. The *Salempur Cut* is a small line about a mile and a half long, taking the flood waters of a large tank lying to the right of the canal to a syphon under the canal, and so on to the Krishni Nadi.

"4. *Anatmau.*—This is a small cut, constructed a good many years ago to give local relief. In the opinion of the district officers it has not answered the purpose for which it was made. The improvement of this cut forms part of the Katha Nadi scheme, and the canal officers are satisfied that the cut will work efficiently when that scheme is carried out.

"5. *Thola Drainage Cut.*—This is also connected with the Katha Nadi, and will be re-aligned and improved as a portion of that scheme.

"6. *Nainpur Cut.*
"7. *Bhari Cut*, with *Papri* branch. } Old works.

"8. The *Gandeora Cut* is completed. All three will be improved in connection with the deepening of the Shamli Nala.

"9. The *Krishni Nadi* improvement scheme is one of the results of the conference of 1870. Its main idea is the rectification of the bed of the Nadi, from its source near Saharanpur to Jalalabad in the Muzaffarnagar district, together with the construction of various collecting channels. Its object is to drain the greater portion of the land lying east of the canal between it and the Hindan Nadi, comprising an area of

150 square miles. All this tract is water-logged, and the land continues to deteriorate. If the scheme works well it will do an immense deal of good. The estimated cost of the scheme is Rs. 1,92,761. The work was begun in January, 1875, and will probably be finished in 1876. Progress is limited by the swampy nature of the bed of the stream, but the work will be pushed on as fast as possible. Below Jalalabad the Krishni has a clear outfall.

"10. The *Katha Nadi* scheme is to improve the natural channel of the stream between Sikhera and Titron, and to tap the line of jhils between the head of the cut and the Dholapra drain. The area to be protected is 70 square miles, and the estimated cost of the project Rs. 69,459. Work was begun in April, 1874, and will probably be completed in 1876. All agree in anticipating great benefits from the construction of this work.

"11. A large scheme for the drainage of the city of Saharanpur, and for providing an outfall by deepening the Pandhoi and Damola rivers, has been prepared under the direction of Mr. Jenkinson, and carried to completion by Mr. Gilbert Howe in the Public Works Department. This work has already been of great advantage to the health and comfort of the residents of the city, and has restored much land to cultivation.

"12. The *Datauli Project* will drain an area of about 11 square miles on the right bank of the canal, and will carry the drainage under the canal into the Pandhoi Nadi, thus fitting into Mr. Howe's scheme, by which the channel of the Nadi has been improved and enlarged. It will benefit the country immediately north of Saharanpur to a distance of four miles. Estimates amounting to Rs. 71,491 are now under the consideration of Government. The work will be put in hand at once, and should be completed before the rains of 1876.

"13. The obstructed condition of the drainage of the country lying on the right of the canal, between miles 36 and 45, in the neighbourhood of Balpur, requires amendment. Small cuts will be carried into the Ktha Nadi, and orders have been given accordingly.

"14. The Collector reports that some measures are required for the protection of the country lying between the eastern edge of the Krishni Nadi scheme and the Hindan Nadi. The water is said to be held up by the Megchaper and Chidhana rajbahas, and the crops to be annually subject to injury. The question will at once be taken up in the Irrigation Department.

"(*b.*)—*Ganges Canal.*

"15. *Salempur Cut*; *Dhanauri Cut.*—These two cuts are above Roorkee; the first has been recently improved and now works well, as does the Dhanauri Cut.

"16. The Collector reports that the Ranipur Rao brings down silt which injures the land of the village of Bhagtampur and endangers its two sites, and that orders have already issued that a scheme should be prepared for prolonging the cuts towards the Patri Nadi, and making it of such a length and capacity as to ensure the safe delivery of the silt into waste or swampy ground. The Rao is a hill torrent which crosses the Ganges Canal, and has always carried silt over the country. The canal officer has been unable to discover means of carrying on the channel to waste lands at any reasonable cost. But the conclusions formed should be definitely reported without loss of time.

"17. *Sila Nadi Improvement.*—An estimate for rectifying the bed of the Sila Nadi, and by that means to drain the swamps lying along it, was passed for Rs. 7,066 in 1872. Work was carried on in 1873, beginning from the tail of the Nala upwards. But during the first season the heart of the swamped lands was not reached, and in

1874 nothing could be done owing to the transfers of establishment to Bengal. Progress has been resumed, and the work will be completed before the rains.

"18. The *Libarheri Cut* runs parallel to the canal from Manglaur to Mahmudpur, and was primarily intended to relieve the town of Libarheri. Completed.

"19. The *Saidpura and Mindetha Cuts* drain a small area on the right bank of the canal below Libarheri. The Collector states that some further measures are, in his opinion, required for the protection of the lands of the Libarheri village. He should send to the Executive Engineer a statement of his views.

"20. Between the canal itself and the Tansipur and right main rajbahas an area is enclosed in which there is no efficient outlet for surface drainage which saturates the soil; and several villages have suffered from this cause. The construction of works of relief will be undertaken before next rains.

"21. Some twelve or thirteen villages, situated in the khadir of the Ganges, on the right bank of the Solani river, are being injured by a rise of the water-level, which has reduced them to the state locally known as "choel" or water-logged. This, in the opinion of the Collector, is probably due partly to percolation from the bangar or high land, partly to diversion of the drainage which used to pass off to the south part of Manglaur and Libarheri, and is now said to have been stopped by a rajbaha and turned on to the khadir, partly to the choking of a small Nala called Bhat. The canal officers explain that the question of draining this part of the Solani khadir has never before been proposed to them, and that there is apparently a misunderstanding about the stoppage of drainage by a rajbaha. The wants of this tract will be enquired into and reported to Government in this Department. Anything which requires remedy that can be speedily applied will be remedied at once.

"The above works will, if efficiently completed, go far, in the opinion of the civil and canal officers, to meet the requirements of the Saharanpur district.

"II.—MUZAFFARNAGAR.

"(a.)—*Eastern Jumna Canal.*

"22. The *Bhainswal Cut*, on the right bank of the canal, takes a portion of the drainage which comes down the old bed of the Eastern Jumna Canal. It is reported by the district officers not to work efficiently, as where it gets into high land its banks fall in and it gets choked. This indicates defective maintenance, which will be looked to at once.

"23. The *Salawar Cut* takes the major part of the drainage carried by the disused bed of the old canal under the present canal, and carries it to the Krishni Nadi.

"24. The old bed of the Eastern Jumna Canal is a natural drainage line transformed in old times into a canal, which has now been abandoned in parts, the canal being taken along a higher and straighter line. Water now accumulates in the loops of old canal cut off by the new alignment. The drainage of these accumulations forms part of the Krishni and Katha projects.

"In the Muzaffarnagar district the town of Shamli is flooded, and the country below it suffers constantly from the overflow of the Shamli Nala. A scheme for deepening and enlarging the bed of this channel is now in hand, and will probably be ready for submission to Government in September next. It is roughly estimated to cost two lakhs of rupees. Meantime, the lower part of the bed will be deepened at once, so as to provide an outfall for the water which lodges in the town of Shamli, and the municipality will co-operate by digging channels within its own limits to carry the water into the deepened stream.

"25. The *Fatehpur Cut* starts from the large jhil of Fatehpur Aldi, about a mile from the canal, on the right bank, and passes under the canal by a syphon to the

Krishni Nadi. Beyond the canal the cut has been of some benefit, but it has as yet proved insufficient to carry off the flood-water from the town of Aldi. Immediate measures are being taken to remedy this and render it efficient.

"26. The town of Kandhla is surrounded by swamps, but works which will be set in hand in connection with the Kirthal drainage scheme (see under Meerut) have been designed to relieve it. The municipality must co-operate within its limits.

"27. All the country lying on the right bank of the Eastern Jumna Canal in the Thana Bhawan pargana, near Muhammadpur Madan, and between Shamli and Kandhla, is stated by the district officers to be much in need of drainage. Any portions of this tract which do not fall into the Katha and Krishni Nadi projects will be specially provided for. The Collector and Canal Officer will enquire and inter-communicate on this subject.

"28. The towns of Bhauri and Lank, and the country round them, have, the Collector states, long complained of floods. Enquiries have been made as to the best measures for relieving this part of the district, and the project will be pushed on as quickly as possible.

(b.)—Ganges Canal.

"29. *Solani Khadir Reclamation Works, Pargana Gordhanpur.*—As these are specially reported on year by year, and are in active progress, nothing further need be now said about them beyond noting the fact of a considerable area of land having been raised by silt deposits effected year by year.

"30. Similar swamps to these exist in the khadir further south in parganas Bhukarheri and Bhuma Sambalhera, where the ground has become water-logged and is suffering deterioration. These will receive due attention so soon as a report on the precise localities involved is received from the Collector.

"31. *Rehi Cut.*—This cut was opened in 1873, and has answered well as far as it goes. There are swamps on either side of the Grand Trunk Road, and jhils around the town of Chapar, which could be drained, it is believed, if the cut was prolonged and small lateral cuts provided to lead into it. This project is under preparation.

"32. *Bhudiwali Cuts.*—These are a few minute clearances of natural water-courses, which it was hoped would meet the requirements of the case; they have failed to do so, and ampler means will now be provided. The Bhudiwali jhil lies parallel to the West Kali Nadi, and is about one and a half miles long and half a mile wide; it is bounded on the east by sandhills, and lies north of the Rehi drainage.

"33. *Muzaffarnagar Drainage Scheme.*—A system of cuts for the relief of the lands lying east of the town of Muzaffarnagar was completed before the rains of 1874, and the Collector of Muzaffarnagar reports that great advantage has accrued from them to the villages south of the Bijnor road. The grant made is exhausted; but a good deal more remains to be done in the neighbourhood of the villages of Pachenda and Makhiali, and lateral cuts are said to be required to drain some swamps round the village of Beghazpur. Measures will now be taken to drain these villages. Between the Makhiali distributary and the sandhills which run down the middle of the Muzaffarnagar district there is a chain of small jhils about seven miles long; an outlet was provided for their storm-water under the right main distributary in 1872, but as funds are available a drainage cut should now be provided. The drainage of these jhils did not form a part of the Muzaffarnagar scheme, but it can let into the main cut of the system below the village of Sandhauli. Estimates for these schemes are under preparation.

"34. *Bhainsi Cuts.*—There are now in process of construction, and will cost Rs. 20,101; they will probably be completed before the rains of 1876, and will afford

requisite relief to the drainage of 70 square miles of country lying between the Muzaffarnagar sandhills and the Ganges Canal.

"35. *Nagan Nadi Drainage System.*—This system is intended to provide for the drainage of a large area lying between Jansath and Khatauli and the east bank of the Nagan Nadi, by improving the bed of the latter, and by cuts from Jansath, Tisang, and Chandsamand: the two former of these cuts were made some years ago, but they have not met the difficulty, and the town of Jansath last year was flooded to a very considerable extent. The enlargement of these cuts to a proper section is already in hand, and will be completed before the next rains.

"36. In connection with the Nagan Nadi series a drain is projected by the canal officers to carry waters which now flood the lowlands between Khatauli and Banghi into the East Kali Nadi. The project will be discussed with the Collector before submission to Government.

"37. The Collector reports that there are several large swamps in the village of Juna, Mor-ka-hukka, and Dabbal in pargana Shikarpur. Enquiries will be made into the measures necessary for draining them.

"38. The works described above will complete the drainage system of the Muzaffarnagar district as far as can at present be foreseen.

"III.—MEERUT DISTRICT.

"*(a.)—Eastern Jumna Canal.*

"39. *Kirthal Drainage Cut.*—There is an old cut beginning at Kirthal, on the right of the canal, and tailing into the river Jumna about three miles below Kotanah. It is insufficient for the drainage of the lands depending upon it, and a project is now in course of preparation for expanding it. The new scheme will embrace the drainage of the country lying on the right of the canal, beginning at Kandhla in the Muzaffarnagar district, and by a branch will also drain the lands lying along the Nasauli distributary. The field work has been completed, and the project would have been submitted to Government by the 1st June probably; the cost will be about half a lakh of rupees. The town of Baraut is inundated in the rains, but a branch cut to the Kirthal main cut, which forms part of the scheme, will afford the requisite relief. The works have been put in hand at once. A syphon will be constructed under the canal at Baraut whenever opportunity occurs of closing the canal; also a channel from the syphon to Kirthal drain, and the Kirthal drain will be widened from Kirthal downwards as far as necessary. A cut will also be made from Kandhla to Kirthal.

"The drainage of Kandhla and Baraut towns within municipal limits will be carried out in the Buildings and Roads Branch of this Department, in conjunction with the general scheme.

"40. *Alawalpur Drainage.*—This is a contemplated project much required, beginning on the left of the canal and tailing into the Jumna; a syphon will be provided under the canal. The field work has been completed, and the estimate, roughly taken at Rs. 25,000, is in course of preparation. The Collector reports that in the middle of February he found half the village lands of Alawalpur swamped. A syphon under the canal will be constructed during the first closure, and the cut will be dug from it towards the Jumna.

"41. *Deola Drainage.*—For the drainage of the country lying on the left of the canal, from mile 99 to mile 117 a large scheme will have to be drawn up. The outlines of the project have been ascertained, but the survey and levelling has not yet been done. It is probable that the scheme, which is less urgent than the preceding, cannot be taken up this year, but no avoidable delay will occur.

"42. A few minor cuts on the right of the canal will complete all that is known as to the present drainage requirements of the country irrigated by the Eastern Jumna Canal.

(b.)—The Ganges Canal.

"43. *Abu Nala.*—In 1868-69 the Nala was cleared out and otherwise improved in its upper branches, and a diversion cut was excavated north of Meerut to carry a portion of its waters by a more direct line to the East Kali Nadi; the old channel running through the city of Meerut was also cleared out. The drainage of Meerut is still, however, defective, and a project is now before Government, in the Provincial Public Works Department Branch, for the effectual drainage of the city and cantonments. Seeing the extreme urgency of this case, His Honor the Lieutenant-Governor has decided that the drainage of Meerut shall be proceeded with at once, and separate orders* have been already issued on the subject. This plan has been elaborated with great care by Mr. Howe, and it is hoped that when it is completed it will provide an effectual remedy for the evils suffered in the cantonment and city.

* G. O. No. 427 B.R.-C., dated 4th February, 1875.

"44. The *Sardhana Drainage Cut* begins at the town of Sardhana and drains a large area lying on the right of canal. The cut was finished before the rains of 1874, and has proved efficient, except at the very head, where clearance is apparently requisite, which will be carried out at once. The Collector states that in his opinion constant attention will be required to prevent it from silting up.

"45. *Dhandala Cut.*
Khadirabad Cut.
Hawal Cut.
Shaikhpura Cut, No. 4.
Ditto, No. 5.

These five cuts, known as the Khadirabad drainage system, are now nearly completed, a further small length of six miles only being required, which is in course of construction, and should be finished, if possible, before the rains. The system will drain the country lying to the left of the main canal from Dhandala *viâ* Begamabad to Bhatiana, and will tail into the East Kali Nadi by means of—

"46. The *Chhóiya Nula*, which has been widened and improved. Side cuts are required to complete the drainage. The Collector considers the early completion of these cuts to be important, and no time will be lost in carrying them out.

"47. *Baral Cut.*—The swamped condition of the town of Dhaulana was brought to notice. To remedy its condition and to drain the country lying between the canal and the left main distributary, from Dasna to Baral in the Bulandshahr district, a series of cuts are now in course of construction. This is a specially urgent case, and the cuts should be completed at once, so as to be in full work by next rains. The Collector urges that the rajbaha which flows at a height of about six feet above the level of the village should be removed, as the excessive moisture due to percolation results in the crumbling away of the walls of the houses and renders the village uninhabitable. This will be at once enquired into by the Irrigation Department, and any measures will be taken that are proved to be necessary.

"48. *Karauli Drainage.*—There is a small natural watercourse (Chhoiya) between the left main distributary and the canal, whose catchment basin extends from the neighbourhood of Sardhana to a point opposite Meerut. The Chhoiya itself rises on the left of the distributary close to the Abu Nala. For the passage of the stream, syphons have been made under all the distributaries crossing it, except one, which is regularly cut in the rains, but more radical measures are called for, and a drainage scheme should be drawn up as speedily as possible for submission to Government, with the view of thoroughly draining the area indicated. The cost of the project will be about Rs. 50,000.

"49. *Mr. Michell's Cut.*—In order to drain his village, Mr. Michell excavated a cut through his land up to his boundary, but the owners of the lands beyond refused

to allow him to proceed with it. In consequence of this, distress is felt after heavy rains, which calls for remedy. The case will be investigated and relief afforded.

"50. *Hasanpur Drainage.*—The drainage of the jhil lying in the lands of Hasanpur, on the borders of the Meerut and Bulandshahr districts, will form part of a project, now in course of preparation, to be noticed further on, as the 'Kot' scheme.

"51. *Khadir lands.*—The lands lying in the valley of the river Ganges have been recently inspected by Mr. Webster, Collector of Meerut, in company with Mr. Beresford, Executive Engineer of the Anupshahr Branch, Ganges Canal. Mr. Webster reports that more than half the cultivated area of the villages along the course of the Budhganga has been rendered unproductive. A scheme will be drawn up in the Irrigation Branch for the relief of these lands.

"52. *East Kali Nadi.*—A survey is now being made, and measures will forthwith be taken to improve the outfall of this river to the latitude of Bulandshahr. It was noticed that the East Kali Nadi will in future have to carry off a considerably increased flood volume, and this should be duly considered in all future designs for bridges and other works connected with it.

"The above list comprises all that is known as to the present drainage requirements of the Meerut district.

IV.—Bulandshahr District.

The Ganges Canal.

"53. *The Kot Drainage Scheme.*—This is a scheme now in course of preparation, which will drain the country lying between the main canal and the Bulandshahr branch. The Collector reports that these villages suffer so much from inundation that a great portion of their lands are not even ploughed for the rabi harvest. A considerable area on the right of the Bulandshahr branch will be included, and a branch cut from the village of Hasanpur in the Meerut district, as already stated, will form part of the scheme. The drainage water will be discharged into the Kot escape, and be by it passed into the river Jumna; the principal features of the project have already received the approval of Government, and the details are now being worked out.

"54. *Khurja Drainage.*—The deplorable state of the town of Khurja and the adjacent tract, consequent on the increased amount of liberated water which now flows down upon it from the Meerut district, is acknowledged on all sides, and a project is now being prepared for carrying off surface water from the whole area lying between the canal and the Karwan Nadi, from Jarcha downwards past Khurja, to enter the Nadi again at the village of Johra. In order to enable the Karwan to carry the increased volume of water that will be thrown into it by this scheme, without risk of damage to other lands, its bed will need improvement, but immediate relief must be afforded to Khurja, and in the meantime the risk of injuring lands in the river valley is accepted by the revenue officers, care being taken to protect the villages on the banks.

"55. *Karwan Nadi.*—The nature and extent of the measures needed for the improvement of this channel will form the subject of a separate project, to be drawn out as soon as facts can be recorded.

"56. *East Kali Nadi.*—Measures were commenced in October last for improving the bed of the East Kali Nadi. The rectification of bed as shown (para. 52) extends to 12 miles below Bulandshahr; and a great deal of benefit has already resulted from taking out sirwal or water weed in this length, which at once lowered the water level of river by a foot. The progress of improvement in this valley will no doubt hereafter suggest other minor schemes.

"57. Some villages on the east side of pargana Jewar have suffered much from obstructed drainage. It has been reported that the drainage of Rakhor used to pass through Jahángirpur and Siria through a canal culvert into the Karwan Nadi, but that some obstructions now exist. Enquiry will be made in regard to it in the Irrigation Department, and any steps found necessary will be taken.

"V.—ALIGARH DISTRICT.

"1.—*The Ganges Canal.*

"58. *Somna Drainage Cut.*
"59. *Koil Drainage Cut.*
"60. *Aligarh Drainage Cut.*
} Below Khúrja, a string of jhíls lying round the town of Somna and reaching to Aligarh itself form the head of the Sengar nadi. The whole country was observed by His Honor, on his tour in January last, to be inundated and in urgent need of drainage. The three cuts mentioned above are now insufficient for the passage of the drainage with which they are charged. The advisability of turning the waters of the jhíls round Somna into the Sengar river, and by that means draining the large area of country lying on the right of the main canal from mile 142 to mile 160, or above and below the town of Palra, is now under examination, but the whole subject is intimately connected with—

"61. *The Improvement of the Sengar Nadi*, which is unable to carry off the drainage of its catchment basin, owing to its bed having silted up from one cause or another, more especially from crops being sown in its bed, and from the construction of "bunds" or earthen dams. The Sengar Nadi will be examined as early as possible, with a view to enlarging its carrying power.

"62. The *Palra Drainage Cuts* comprise a system of channels which drain the country lying on the left of the canal between Gangauli and Kasimpur. They are of recent date and work efficiently.

"63. *Sikandra Ráo Drainage.*—This town lies at the head of the *Isan nadi*, which again is in need of clearance. A project for the drainage of Sikandra Ráo and the country round it is all but ready, and would have been taken in hand last year but for the requirements of Bengal. The work has been rigorously commenced. The question of improvement of the Isan Nadi will also be taken up.

"64. This terminates the list of schemes brought forward within the limits of the Meerut Revenue Division. Few entirely new works have been proposed, and the requirements are generally limited to the completion or extension of the works determined upon after the conference of 1870, which have already been executed to the amount of Rs. 5,20,000 from the annual grants, as shown by the Resolution in this Department, No. 353, dated 6th April, 1874.

"65. The following remarks relate to the Agra Division. The demand for drainage is not yet urgent in that division, and, in the absence of local officers, existing works only are mentioned.

"The *Rind Nadi* drains the country lying between the Cawnpore and the Etáwah Branches of the Ganges Canal. Its condition will be investigated in its turn.

"67. The *Bijaigarh Cut* is a small cut draining the swamps round the town and fort of Bijaigarh into the Sengar at Bachad; but in order to increase its usefulness it should be prolonged upwards towards Nanau.

"68. *Nagaria Cut.*
"69. *Kanakpur Cut.*
"70. *Jamalpur Cut.*
} These three cuts lie along the Etáwah Branch of the Ganges Canal, and, with the exception of the Kanakpur, which requires clearing, in the opinion of the canal officers, serve the purpose for which they were constructed; but doubts have been expressed by the Commissioner, and further enquiries will be made.

"71. The *Ginauli Cuts* are on the left of the Cawnpore Branch; they are short lines and act fairly.

"His Honor has thought it advisable to defer the issue of this resolution until the enquiries and comparisons requisite for the compilation of the foregoing statements had been completed, and time had been allowed for the framing of approximate estimates.

"All necessary orders have meanwhile been issued.

"In conclusion, Sir John Strachey desires to acknowledge the promptitude and energy which have been displayed by all grades of Canal Engineers in carrying out the necessary investigations, and in commencing the large works now in progress, so soon as the urgency of the case determined the Government to devote special funds to the purpose."

121. I have already in this report recorded my opinion, as the result of actual observation, of the good likely to result in regard to the health of the people in the localities influenced, by the making of the drainage cuts described in the summary to the resolution. The summary shows how numerous these cuts are. They undoubtedly represent a great net-work of *artificial* drainage channels which will direct the surplus moisture of many portions of the country to the natural drainage lines. The works of this nature which I have seen seemed to me, as a sanitary officer, worthy of much praise. They are, and those to be completed will, I have no doubt, be, very efficient for their intended purpose, carrying off water in a wide gurgling stream where formerly all was stagnant.

122. When the Irrigation Department shall have completed the system by perfecting the channels of the receiving nadis, then I think all that can possibly be done, under existing circumstances, will have been effected. And then it may be hoped that an effectual remedy will have been provided against, certainly any increase of moisture or dampness, and probably the present excess of moisture which prevails in certain localities may gradually decrease. It may be that the effectual improvement of the nadis of the Doab would necessitate a very large expenditure. I hope it may be possible, by spreading the total expenditure over a series of years, to remove in great measure the apparent difficulty thus created.

123. This, in most respects, well-conceived and determined endeavour to further improve the drainage of the Doab country in the neighbourhood of canal-irrigation is the most important advance in the direction of sanitary improvement effected during the past year. I believe this drainage work is of very great importance, and in its entirety constitutes a work of the first magnitude, in regard to the endeavour to improve the sanitary aspect of a wide surface of country densely peopled—a country, indeed, than which I suppose there is none more valuable in all the widespread surface of the British Empire in India.

124. As yet I am not able to report any great work of sanitary improvement as progressing in the large cities, Allahabad, Benares, Agra, or Cawnpore. At Benares a drainage scheme of importance is under consideration, but has not yet advanced beyond that preliminary step. I think it is probable that an artificial water-supply taken from the neighbouring river is a measure of sanitary improvement more worthy of serious consideration for cities of their comparative importance than schemes for drainage which should properly follow, and will of necessity follow, the plentiful supply of good water. There cannot be a doubt that the well water of the cities generally in this province is unfit for human consumption. By an artificial water-supply I do not mean a house-to-house supply, but such provision as would provide a plentiful supply of water to the public at certain stations in the more important ways and places, and a sufficient waste to provide a continuous running stream through the channels of the drainage system. I think a system attempting only

so much might be provided in any of the large cities without extraordinary expenditure, and the results, from a sanitary point of view, would be most satisfactory.

125. In all the cities and towns possessed of municipal government the work of sanitary improvement in the minor, but very important, forms of better conservancy, local drainage, consolidation of the public ways, reclamation of waste places, has continued during the past year. I had intended in this chapter to have described the nature and measure of these recent improvements in all the municipal towns, but after waiting, now until the last moment possible, for the necessary information on this point, I am only in a position to accord the endeavours made in this direction in 55 out of the 81 municipal towns we now have, the remaining 26 municipal towns not having yet favoured me with a statement of the work done.

It is true that a fair idea of the general progress made may be gathered from a consideration of the results in the 55 towns, but I should have been very glad to have included a statement of every town in this account, and hope I may be able to do so in future reports.

126. Dividing the 55 towns by divisions, they provide the following list, and I have thought it best in this first statement of results to include all that has been done during the past five years, or since the municipal management was established :—

Division.	*Towns.*
Kumaun Division,	Almora.
	Kásipur.
Rohilkhand,	Bijnor.
	Chándpur.
	Dhámpur.
	Nagína.
	Najíbabad.
	Pilibhít.
	Sháhjahánpur.
	Tilhar.
	Bilsi.
	Moradabad.
	Chandausi.
	Sambhal.
	Amroha.
	Dhanaura.
Meerut,	Mussooree.
	Saháranpur.
	Hardwár.
	Deoband.
	Kairána.
	Kándhla.
	Muzaffarnagar.
	Shámli.
	Bulandshahr.
	Anúpshahr.
	Sikandarabad.
	Khúrja.
Meerut,	Koil.
	Háthras.
	Sikandra Ráo.
	Atrauli.
	Harduáganj.
Agra,	Etah.
	Soron.
	Kásganj.
	Marhera.
	Aliganj.
	Muttra.
	Kosi.
	Brindaban.
	Farukhabad.
	Etáwah.
	Jaswantnagar.
Allahabad,	Fatehpur.
	Bánda.
Benares,	Gorakhpur.
	Azamgarh.
	Mirzapur.
	Chunar.
Jhánsi,	Orai.
	Kálpi.
	Kúnch.
	Jhánsi.
	Lalitpur.

In the KUMAUN DIVISION there are but three municipal towns.

127. At ALMORA, the most important sanitary improvements recently effected have been the paving with stone of a long roadway on the north side of the bazar; the planting of many young trees in bare places about the town, and of 400 young alder trees around the springs from which Almora draws its water-supply; the making of the cart-road approach to the town; the creation of an open space in the midst of the town to provide ways of approach to the new Mission school, and clearances in front of the dispensary building;—these undertakings being calculated to provide more perfect ventilation and a purer air in and about the town. These improvements have been commenced and completed during the past five years at a cost of Rs. 3,423, the municipal income being about Rs. 2,527.

128. At KÁSHIPUR, many old unwholesome excavations in and around the town have been filled up, as the continuous work of the past three years, and work in the same direction continues. This has been the principal sanitary improvement of recent years, and it is believed that the health of the townspeople has been much improved thereby. Several of the streets have been recently paved. The total expenditure on the two forms of sanitary improvement has been Rs. 6,514, the total income being about Rs. 5,589. It is estimated by the municipal authorities that about one-third of their income is devoted to improvements affecting the public health.

In ROHILKHAND, of a total of 19 municipalities, I am able to give the particulars for fourteen.

129. At BIJNOR, the principal recent improvements have been, the metalling of the Ballaganj bazar road and providing it with masonry side drains; paving of the Shamba bazar and another important way with hexagonal blocks, and providing them with masonry side drains; raising and levelling an important public thoroughfare; paving several of the lanes of the town with brick-on-edge. The total expended in these works was Rs. 6,621, the income being about Rs. 8,197.

130. At CHÁNDPUR, metalling the principal bazarway; repairing the drains in the town; improving the wells in the town; building public latrines; repairing and clearing the lanes of the town. The total expended on these works has been Rs. 7,238, the municipal income being about Rs. 5,274.

131. At DHÁMPUR, paving the bazar and other roads with brick-on-edge and providing them with masonry side drains and culverts; repairing wells. The total expended for these purposes has been Rs. 4,299, the income being about Rs. 5,100.

132. At NAGINA, paving bazar road; constructing public latrines; repairing and clearing the lanes of the town; repairing the wells, and improving the surface drainage. The total expended was Rs. 5,253, the income being about Rs. 10,226.

133. At NAJIBABAD, paving bazar road; paving the lanes of the town; paving with boulders the principal roadway through the town; making masonry side drains to roadways; sinking two new wells and repairing the wells of the town; building public latrines; building large culvert over principal drainage channel; repairing and clearing the lanes of the town. The total expended for these purposes was Rs. 17,344, the income being about Rs. 14,961.

134. At PILIBHÍT, metalling the principal roadways; providing surface drains in the town; constructing a ganj or grain market; building a slaughter-house; constructing public latrines and urinals. The total expended for these purposes was Rs. 23,297, the income being about Rs. 33,299.

135. At SHÁHJAHÁNPUR, the complete surface drainge of the town excepting on its south side; the making of new pavements in the town; metalling two principal roadways; building a slaughter-house; repairing and improving the grain market.

The total expenditure for these works has been Rs. 29,400, the income being about Rs. 47,510.

136. At TILHAR, the metalling of the four principal roadways; the pavement of the bazaar; building public latrines; building a slaughter-house. The total expenditure for these works has been Rs. 5,093, the income being about Rs. 8,993.

137. At BHILSI, metalling and repairing the principal roadways and providing them with side drains, filling up three excavations in the town; building a new sarai; metalling lanes in the town. The total expenditure for these purposes has been Rs. 9,165, the income being about Rs. 5,399.

138. At MORADABAD, construction of public latrines, improvements in the surface drainage of the town site; pavement of streets; metalling of roadways; making and repairing wells. The total expended for these purposes was Rs. 13,180 during the past five years, the income being about Rs. 38,246.

139. At CHANDAUSI, construction of public latrines, surface drainage of town site; pavement and metalling of principal streets. The total expended for these purposes has been Rs. 20,871 during the past five years, the income being about Rs. 20,305.

140. At SAMBHAL, construction of public latrines, surface drainage of town site, pavement and metalling of principal roadways, excavating principal drainage cutting; levelling unmade lanes. The total expended for these purposes has been Rs. 13,923 during the past five years, the income being about Rs. 17,592.

141. At AMROHA, surface drainage of town site, pavement of streets, metalling principal way. The total expended for these purposes has been Rs. 7,915 during the past five years, the income being about Rs. 14,381.

142. At DHANAURA, surface drainage of town site, pavement and metalling of principal roadways; shaping new tank; levelling unmade lanes. The total expended for these purposes has been Rs. 5,324 during the past five years, the income being about Rs. 4,981.

In the MEERUT DIVISION of 25 municipalities, I am able to give the particulars for 17.

143. At MUSSOORIE, the drainage of Cooly Bazaar, the erection of seven iron water-tanks communicating by means of iron pipes with the source of water-supply, distant about a mile and a half from the tanks, building public latrines, providing iron utensils for conservancy purposes. The total expenditure for these purposes was Rs. 11,763, the income being about Rs. 17,971.

144. At SAHARANPUR, the drainage of the city and outskirts, providing public latrines, building a leper asylum, clearing crowded portions of the city site, levelling excavations, providing new cemeteries. The total expended for these purposes has been Rs. 95,772, the income being about Rs. 50,694. But the important drainage works have been constructed by means of funds derived from a loan.

145. At HARDWAR UNION, the digging of two important drainage cuts, paving the principal roadways in Hardwar, Jawalapur, and Kankhal, metalling roadways in the town, making bathing-ghats, levelling and excavation, building public latrines. The total expended for these purposes has been Rs. 37,608 in five years, the income being about Rs. 21,221.

146. At DEOBAND, metalling and draining roadways, building a dispensary, building public latrines, providing in part for the improved surface drainage of the town site, the work being now in progress. Building a new sarai, making new

market-place. The total expended for these purposes has been Rs. 10,780 during the past three years, the income being about Rs. 13,950.

147. At KAIRANA, the paving of the principal thoroughfares, providing public latrines. The expenditure for these purposes was Rs. 3,849. This municipality was established in April, 1874, and its income has not yet been recorded.

148. At KANDHLA, levelling and excavation in the town, building public latrines, repairing pavements. The total expended has been Rs. 1,565. This municipality was established in 1874, and its income has not yet been recorded.

149. At MUZAFFARNAGAR, the surface drainage of the town and station, the construction of public latrines, the improvement of town wells, the paving of streets, the drainage of the sarai, the total expended for these purposes has been Rs. 2,987 in five years. The income being Rs. 14,980.

150. At SHAMLI, the building of public latrines, the improvement of town wells, metalling roadways, surface drainage of town site, levelling excavations. The total expended for these purposes has been Rs. 2,719 in two years, the income being about Rs. 13,068.

151. At BULANDSHAHR, the surface drainage of the town site, the pavement of streets, making wells, paving principal drainage channel, constructing public latrines. The total expended for these purposes has been Rs. 10,740 in five years, the income being about Rs. 11,507.

152. At ANUPSHAHR, the surface drainage of the town site, the pavement of streets, the construction of public latrines. The total expended for these purposes has been Rs. 4,228 in the past five years, the income being about Rs. 6,311.

153. At KHURJA, the surface drainage of town site, pavement of streets, construction of public latrines. The total expended for these purposes has been Rs. 17,808 in the past five years, the income being about Rs. 24,086.

154. At SIKANDRABAD, levelling excavations, metalling principal thoroughfares. The total expended for those purposes has been Rs. 2,851 in the past three years, the income being about Rs. 12,557.

155. At KOIL, the opening out of a new street through the city, the pavement of streets and lanes, the metalling of public thoroughfares, the improvement of the surface drainage, providing public latrines, improving wells, widening existing roadways, building a new market, building a new well. The total expended for these purposes was Rs. 40,048 during the past five years, the income being about Rs. 45,755.

156. At HATHRAS, making circular road around the town, making roadways in the town, building new wells, improving surface drainage, levelling the great excavation facing the town-hall and converting it into a shaped tank; dismantling and levelling town wall and ditch, constructing public latrines, paving the streets, filling an excavation in the town. The total expended for these purposes was Rs. 74,341 during the past five years, the income being about Rs. 57,950.

157. At SIKANDRA RAO, metalling and paving and draining the bazar roadways, metalling the streets and lanes of the town, improving the surface drainage of the town site. The total expenditure for these purposes has been Rs. 6,785 during the past three years, the income being about Rs. 6,946.

158. At ATRAULI, improvement of surface drainage of town site, raising, metalling, and draining principal roadways. The total expended for these purposes was Rs. 8,208 during the past five years, the income being about Rs. 8,664.

159. At HURDUAGANJ, in 1870-71 the drainage of the town site was improved and a new roadway made, at a total cost of Rs. 1,738. Since then no work of sanitary improvement has been effected. The income is about Rs. 3,723, so that, the President of the Municipal Committee reports, there is little to spend on works of the above nature.

In the AGRA DIVISION, of 16 municipalities, I am able to give the particulars for 11.

160. At ETAH the works of sanitary improvement have been as follows :—

The surface drainage of the town site, levelling excavations, paving streets, providing public latrines, constructing and repairing wells, metalling roadways. The total expenditure for these purposes has been Rs. 9,446 during the past five years, the municipal income being about Rs. 9,652.

161. At SORON, the paving of streets, repairing wells, metalling roads, making drains. The total expenditure for these purposes has been Rs. 4,362-9-8, the income being about Rs. 10,740.

162. At KASGANJ, surface drainage, stone pavements, metalling streets, levelling excavations, repairing wells. The total expended for these purposes has been Rs. 9,798 in the past five years, the income being about Rs. 16,095.

163. At MAREHRA, metalling roadways in the town, surface drainage, levelling excavations, repairing a well. The total expended was Rs. 2,329 during the past three years, the income being about Rs. 3,916.

164. At ALIGANJ, surface drainage of town site and repairs to wells. The total expended in the past three years was Rs. 1,198, the income being about Rs. 8,329.

165. At MUTTRA, stone pavement of the principal roadways and streets of the city, pavement of lanes and streets, improvements in the surface drainage of city site, metalling thoroughfares in the city, constructing public latrines, making a well. The total expended for these purposes was Rs. 1,37,196 in the past eight years, the income being about Rs. 55,425.

166. At KOSI, metalling and paving the principal roadways of the town, levelling excavations, improvements in the surface drainage of the town, construction of wells, opening out a market-place, improving the cattle market, building a dispensary, constructing public latrines, planting and watering trees, providing new burning ghat for the dead. The total expenditure for these purposes has been Rs. 23,386 during the past nine years, the income being about Rs. 12,384. A loan of Rs. 8,000 was obtained last year for the purpose of providing a new cotton market.

167. At BRINDABAN, metalling and paving the principal thoroughfares in the town, the surface drainage of the town site, providing public latrines. The total expended for these purposes was Rs. 22,789 during the past five years, the income being about Rs. 20,828.

168. At FARUKHABAD, the building of slaughter-houses, levelling excavations, improving the surface drainage of the city site, shaping an important tank in the city, planting the old city wall with trees, levelling and cultivating broken ground, repairing wells, metalling and paving the principal streets. The total expenditure for these purposes was Rs. 20,950 during the past five years, the income being about Rs. 49,428.

169. At ETAWAH, completion of market-place, improvements in the surface drainage in the town site, metalling and paving the public thoroughfares, levelling excavations in the town, clearing and widening narrow lanes, constructing a slaughter-house, constructing wells. The total expenditure for these purposes was Rs. 22,917 during the past five years, the income being about Rs. 23,363.

170. At JASWANTNAGAR, the metalling of the principal roadways, improving the surface drainage of the town site. The total expenditure for these purposes was Rs. 2,038 during the past two and a half years, the income being about Rs. 4,140.

In the ALLAHABAD DIVISION, of five municipalities, I can give the particulars of two.

171. At FATEHPUR, the works of sanitary improvement have been as follows :— The pavement of streets and lanes, the improvement of the surface drainage of the town site, the straightening of narrow thoroughfares, building new markets, repairs of wells, clearance of ruined houses. The total expenditure for these purposes has been Rs. 3,644 during the past three years, the income being about Rs. 11,653.

172. At BANDA, improvements in the surface drainage of the town site, levelling low surfaces, opening out new roadways, laying out people's park, constructing cholera and small-pox hospitals, improvements to tanks and repairs of wells. The total expended for these purposes has been Rs. 7,200 during the past five years, the income being about Rs. 18,063.

In the BENARES DIVISION, of seven municipalities, I am able to give particulars of four.

173. At GORAKHPUR, the metalling and paving of streets, constructing public latrines, converting a filthy excavation into a shaped tank in the bazaar, improving the surface drainage of the city site, building a municipal market, improving a large irregular filthy excavation in front of the jail. The total expenditure for these purposes has been Rs. 36,923 during the past five years, the income being about Rs. 29,577.

174. At AZAMGARH, the improvement of the surface drainage of the town site, building sarai, providing public latrines, levelling excavations. The total expended for these purposes was Rs. 2,124 during the past four years, the income being about Rs. 9,614.

175. At MIRZAPUR, the paving of lanes and bathing-places, the improvement of the surface drainage of the city site, construction of public latrines and urinals, construction of wells, planting trees, construction of receptacles for sweepings, construction of slaughter-house, widening of narrow streets. The total expended for these purposes was Rs. 31,323 during the past five years, the income being about Rs. 62,077.

176. At CHUNAR, providing public latrines, metalling roadways, levelling an excavation near the grain market, purchasing a dispensary building. The total expended was Rs. 1,575 during the past five years, the income being about Rs. 6,174.

In the JHANSI DIVISION, of six municipalites, I can give particulars for five.

177. At ORAI, the opening of a new road through the town, the pavement of the streets, the improved drainage of the town site. The total expended for these purposes has been Rs. 906 during the past five years, the income being about Rs. 4,113.

178. At KALPI, the completion of the new market-place, metalling of roadways, levelling and shaping unmade ways, improvement of ghat, planting of trees. The total expended for these purposes has been Rs. 14,115 during the past five years, the municipal income being about Rs. 12,579.

179. At KUNCH, providing a new market-place, constructing public latrines, metalling roadways, paving streets, repairing wells, repairing and shaping unmade lanes, improving the surface drainage of the town site, levelling broken surfaces. The amount expended for these purposes has been Rs. 10,543 during the past five years, the income being about Rs. 7,429.

180. At JHANSI, constructing public latrines, planting trees, metalling roads. No important sanitary improvement was effected during the past five years. The

amount expended for the abovementioned purposes was Rs. 2,703 during the past five years, the income being about Rs. 1,115.

181. At LALITPUR, the construction of public latrines and urinals, improvement in the surface drainage of the town site, the construction of a slaughter-house. The total expended for these purposes was Rs. 1,572 during the past five years, the income being about Rs. 5,708.

182. From the preceding concise accounts of the improvements effected in 50 of the municipal towns, it may be learnt that in every town something of permanent improvement has been done during the past few years. I have restricted the account to work done and leaving plainly visible results of sanitary improvement. In regard to the amounts expended in such works, I need scarcely add that they by no means represent the total expended for sanitary purposes. For the important business of improved conservancy, which has received a great amount of attention in every municipality, the amount expended in 1873-74 in the 81 municipal towns was Rs. 2,78,642, which fairly represents the amount expended for this purpose every year. And the result is that the municipal towns are, as a rule, admirably kept in regard to surface cleanliness. I do not say that a more perfect conservancy is not required in some parts of almost every town, for my reports show the contrary; but as a rule, and taking the broad surfaces of the town sites as a whole, it is a fact that a condition of cleanliness now exists within their boundaries which contrasts very much with their condition a few years ago. A condition of cleanliness which has brought about a marked improvement in the freshness and purity of the air which circulates in the towns.

183. In the smaller towns and the many villages of the country I do not think any material progress towards sanitary improvement has been effected in recent years. It is true that absolute filthiness of a village site is not so often seen now as formerly; but as yet nothing of importance has been done to improve the sites by levelling broken surfaces, or by planting trees in and around the site. These are the sanitary measures most likely to result in permanent good, most likely to be acceptable to the people, and least difficult of accomplishment.

C. PLANCK,

Sanitary Commr., N.-W. P.

APPENDICES.

APPENDIX I.

REPORT ON FEVER IN MEERUT DISTRICT.

MEMORANDUM.

GOVERNMENT having resolved to ascertain to what cause the increased sickness and mortality at Meerut are due, I have been called on to prepare statistics regarding them.

2. Canal irrigation is the alleged cause, and to throw such light on this subject as I can, I have prepared a return for the last four years, showing the mortality from fever and all other causes in the different mortuary circles throughout the district. (*Vide* statement No. I. appended).

3. In October, 1870, the mortuary returns were first submitted to me as Mortuary Registrar, and I confine myself to the last four years, omitting the three months of 1870; but I hope to obtain from the Magistrate's office the district mortality since 1865, and thus be enabled to exhibit figures for the last ten years. *Vide* statement No. II., received for four years only, and subsequently to the writing of this memorandum.

No. II.

Return showing the deaths from fever and all other causes in the district of Meerut for the four years 1867-70.

Months.	1867.			1868.			1869.			1870.		
	Fevers.	All other causes.	Total.	Fevers.	All other causes.	Total.	Fevers.	All other causes.	Total.	Fevers.	All other causes.	Total.
January, ...	677	305	982	549	337	886	557	620	1,177	652	395	1,047
February, ...	460	284	744	386	270	656	498	731	1,229	549	311	860
March, ...	493	363	856	553	334	887	645	1,013	1,658	700	484	1,184
April, ...	576	969	1,545	602	430	1,032	541	1,080	1,621	660	460	1,120
May, ...	722	2,371	3,093	802	661	1,463	776	1,794	2,570	941	724	1,665
June, ...	499	1,304	1,803	906	691	1,597	760	1,144	1,904	747	687	1,434
July, ...	512	563	1,075	935	625	1,560	558	438	996	798	669	1,467
August, ...	820	969	1,789	785	461	1,246	691	494	1,185	1,165	558	1,723
September, ...	1,242	888	2,130	617	535	1,152	914	675	1,589	1,928	489	2,417
October, ...	1,748	570	2,318	607	384	991	1,289	794	2,083	5,376	753	6,129
November, ...	1,655	465	2,120	844	472	1,316	1,181	475	1,656	4,194	595	4,789
December, ...	884	414	1,298	820	639	1,459	1,049	505	1,554	2,553	526	3,079
Total, ...	10,287	9,466	19,753	8,406	5,839	14,245	9,459	9,763	19,222	20,263	6,651	26,914
Ratio per 1,000 to population.	8·57	7·89	16·46	7·01	4·87	11·88	7·88	8·14	16·02	16·89	5·54	22·43

The ratio of mortality from all causes in these four years is so low, *viz.*, 16·46, 11·88, 16·02, and 22·43 per 1,000, that it is unnecessary to comment on returns so incomplete. It is observed that the deaths from fever in 1870 more than doubled those in the previous years.

4. It is generally known how untrustworthy mortuary returns now are; probably they are not much better than those obtained before the introduction of the present mortuary arrangements.

5. In this district there are 1,666 villages, and excluding the 11 town circles, there are 40 rural circles, and thus each rural mortuary circle contains on an average 41 villages, with a mean population of 673 persons to each village. The mode of collecting the mortuary statistics of these villages is as follows:—The village chaukidar goes once a week to the registering office of his circle, often 9 or 10 miles distant, to report the deaths for the week as far as he can remember them; and in almost every case it is a mere matter of memory, for the reporters can neither read nor write. In

the sickly seasons of the year great numbers of deaths must thus escape registration. The chaukidars themselves become ill, and are unable either to proceed on their weekly journeys or instruct their *badlis* as to the village mortality. Even were they desirous of performing their duties efficiently they could not. Besides these drawbacks, necessarily bound up with the present system, the registering offices are all so placed as to meet general police arrangements, without any reference whatever to the convenience of mortuary registration. Sometimes they are situated on the boundaries, even in the corners of the circles, instead of being in a central position, as they should be were any regard paid to securing accurate mortuary returns. This complete subordination of mortuary registration has in several instances also led to the breaking up of rural mortuary circles, and to their being added partly to one and partly to another neighbouring circle, further multiplying error; for I have reason to fear that it sometimes happens that the population of the abolished circle is not accurately distributed among the newly enlarged circles, and hence it follows that ratios are calculated on an erroneous population. But apart from errors in the population of the circles thus formed, it has often occurred to me that there is room also for doubt generally as to the correctness of the population assigned to the different mortuary rural circles.

6. These remarks are all, I believe, well founded on facts, and if so, it will be at once manifest how unsafe it would be to draw conclusions from results thus obtained. My object in thus writing is to show that, as the figures we now possess have little or no value, Government must adopt other means in collecting statistics which will enable correct inferences to be drawn, as to how far canal irrigation is injurious to the health of the people.

7. One essential change is the adoption of each village as the unit of registering population, instead of conglomerating, as is now done, the population of 30 or 40 villages together, some of which may be freely irrigated, and others very sparingly, or not at all. There may be excessive sickness and mortality in one or more villages, and little in others. Hence decimation in one quarter may fail to produce a general disturbance of the ratio, and thus escape detection by the District Registrar and Government. Other points equally necessary to be known before the influence of canal irrigation on health can be ascertained with any degree of certainty, are the extent of the lands of each village, the amount of canal water supplied to them, the nature of the soil, the subsoil, the rise and fall of the subsoil water, the rainfall, the drainage, and the kind of crops produced.

These observations would have to be made over an extended area, and carried on in the vicinity of canals and also in adjoining localities, but at a distance from canals, and not irrigated by them. The want of a series of observations of this sort, as it seems to me, has led, and will continue to lead, to assertions and counter-assertions as to the influence of canals, all equally incapable of proof.

8. Much of the information needed to settle this question is to be found among the settlement papers of each village, and much from the periodical returns submitted by officers of the Irrigation Department. The collation of these facts would be easy; the other information necessary to elucidate all the matters in dispute would, as I conceive, have to be ascertained by a special agency.

The decision of the point is of such importance to Government, as so materially affecting the welfare of the people, and the extension or reduction of canal operations, that now the time seems to have arrived when the whole matter in dispute should be subjected to special observations by a committee of experienced officers, composed of a civilian, a medical officer, and an engineer. In this manner the truth would probably be attained.

But whether or not Government may deem it necessary to take any such action, one thing at least seems plain—that the mortuary returns we now possess afford no solution of the vexed question.

9. Statement No. I., accompanying this memo., I have prepared with great care, as far as the arithmetical processes are concerned; from giving the totals, the accuracy of the ratios can be readily tested. Canal irrigation is so extensive in this district that there are few parts of it seemingly entirely unirrigate .

10. In statement No. III. I have arranged the mortuary rural circles in three groups, according to the canal by which they are irrigated, and I show the ratio of deaths from fever in each group for four years. The mean fever mortality in the Eastern Jumna Canal group is 16·33, in the Ganges Canal group it is 28·50, and in the country watered by the Anupshahr branch it is 20·11, giving a mean for the three districts during the four years of 22·80 per 1,000. This appears greatly in favor of the Eastern Jumna Canal as compared with the Ganges, but the registration is so manifestly absurd in Bagpat, which gave a death-rate from all causes in 1871, as is seen in statement No. 1, of only 6·51 per 1,000 of the people, that no reliance whatever can be put on the figures, and no deductions can safely be drawn from them except that they are entirely erroneous. To eliminate the error is impossible.

No. III.

Statement showing the ratio of deaths from Fever per 1,000 of population in mortuary rural circles most irrigated by canals.

Irrigated by Eastern Jumna Canal.						Irrigated by Ganges Canal.						Irrigated by Anupshahr Branch.					
Name of Circle.	1871.	1872.	1873.	1874.	Mean for 4 years.	Name of Circle.	1871.	1872.	1873.	1874.	Mean for 4 years.	Name of Circle.	1871.	1872.	1873.	1874.	Mean for 4 years.
Chaprauli,	20·32	17·50	18·73	16·72	18·32	Daurala, ...	49·60	19·32	12·06	11·38	23·09	Bahuma, ...	28·56	22·52	17·43	11·39	20·07
Barauli, ...	20·86	19·06	17·80	15·62	18·34	Sardhana, ...	21·43	14·56	11·18	19·72	16·72	Mawana, ...	21·96	21·81	13·53	13·49	17·69
Binauli, ...	19·86	12·72	15·94	14·74	15·82	Meerut Pargana.	52·49	61·01	22·80	29·82	41·53	Parichatgarh,	30·95	27·70	19·29	21·69	24·88
Bagpat, ...	6·24	12·62	12·75	11·77	10·84	Jani, ...	23·38	36·03	20·55	20·41	25·09	Garhmuktesar,	18·82	19·00	11·98	10·62	15·10
Pailani, ...	8·49	22·51	17·92	18·76	16·92	Begamabad,	40·34	63·86	23·20	27·02	38·60	Bazar, ...	9·08	26·09	19·58	26·01	20·19
Khekarah,	20·28	16·85	13·58	14·98	16·29	Muradnagar,	30·91	68·15	34·02	24·78	39·46	Pur, ...	15·03	22·00	12·82	16·93	16·69
						Pilkhuwa,	15·81	37·95	19·37	28·02	25·29	Kithor, ...	6·18	31·22	24·95	22·29	22·91
						Dhaulana, ...	11·62	21·63	31·37	38·58	25·55						
Annual means (a).	16·62	17·08	16·27	15·38	16·33	Annual means (a).	30·34	38·45	21·11	24·10	28·50	Annual means (a).	19·64	24·69	17·29	18·82	20·11

General mean of the three irrigated groups for four years = 22·80.

(a.)—These means have been calculated on population and on total deaths as per statement No. 1.

Population = 878,486.

Total fever deaths = 80,117 in four years.

The country irrigated by the Eastern Jumna Canal is difficult of access from Meerut during half the year, and this fact may in no small measure account for the neglect of registration throughout it. This remark does not apply with the same force to the quarter through which the Anupshahr branch flows, but still it has some application to it. It would be most interesting to know if a larger proportion of the land on the Ganges Canal was irrigated than on the other two canals, and also if the portions irrigated get a larger supply of water. These facts, however, are not known to me, and are among those which I mentioned above as some of the factors necessary for the satisfactory solution of the problem. On the whole there seems to be a balance of deaths against the Ganges Canal, attributable possibly in some degree to its being more accessible, and the registering officials probably more attentive to their duties on that account. Possibly also it may in part be due to a freer and more extensive water-supply or to worse drainage. However, in the present dearth of facts, any positive opinions on the point are unwarranted, and I can only guess at conclusions as the mortuary returns are unreliable.

11. In statement No. IV. I show the ratio of fever mortality for the same period in the non-irrigated or little irrigated portions of the district :—

No. IV.

Statement showing the ratio of deaths from Fever per 1,000 *of population in mortuary rural circles not or little irrigated by canals.*

Name of Circle.	1871.	1872.	1873.	1874.	Mean for 4 years.
Daha, ...	14·39	18·01	17·10	15·41	16·22
Kamar-ud-din-nagar, ...	19·20	16·73	14·32	11·65	15 97
Loni, ...	21·84	23·45	19·21	16·34	20·21
Shahdara, ...	21·70	18·24	15·00	14·36	17·32
Ghaziabad, ...	18·96	33·98	22·58	18·41	23·48
Kharkauda, ...	13·49	37·26	31·83	45·25	31·95
Hapur, ...	14·77	29·42	26·80	26·61	24·40
Mowkhas, ...	11·15	30·28	18·85	30 57	22·71
General means (*b.*)	18·18	28·66	26·28	25·00	23·73

The circles of Daha, Kamar-ud-din-nagar, and Hapur have no canal irrigation, and Kharkauda apparently none, and Meerut pargana not much, though I put it in the irrigated list; yet the mean fever mortality in the Meerut pargana, hardly at all irrigated, Kharkauda, and Hapur for the last four years take among the highest places in the list of mortality (*vide* statement No. I). The mean mortality in these non-irrigated circles is 23·73, while the mean in the irrigated circles is 22·80, as is shown in para. 10, almost exactly the same, and the just inference from these results would be that canal irrigation exercises no influence on health, which is probably not true; but more minute observations, and far more details regarding the population and the amount of irrigation are required than any in my possession before any sound conclusion can be arrivedat.

(*b.*)—These means have been calculated on a population of 235,399, and on annual fever deaths of 4,280, 6,696, 5,480, and 5,886—22,342 in four years, as shown in No. I.

No. V.

Statement showing ratio per 1,000 *of deaths from Fever and all causes in seven towns at a distance from canal irrigation, and three towns near it.*

	Names of towns.	Population.	Fever.					All causes.				
			1871.	1872.	1873.	1874.	Mean for 4 years.	1871.	1872.	1873.	1874.	Mean for 4 years.
Distant from canal irrigation.	1. Meerut City, ...	52,866	22·34	49·16	27·96	42·43	35·47	35·03	65·38	36·77	48·22	46·35
	2. Do. Cantonment,	38,520	22·48	45·86	26·48	24 23	28·26	38·26	63·15	27·35	29·52	39·57
	3. Hapur, ...	14,544	13 89	36·79	28·54	33·14	28 09	19·60	52 26	54·67	55·49	45·50
	4. Garhmuktesar,	7,965	18·71	22·22	11·67	15·82	17·10	31·01	34·90	19 96	20·97	26·71
	5. Bagpat, ...	7,367	14·80	24·16	41·80	39·50	30·09	15·34	30·54	49·80	48·02	35·92
	6. Ghaziabad, ...	7,365	18·19	47·38	25·79	26·20	29·39	34·36	68·56	41·54	34·62	44·77
	7. Pilkhuwa, ...	6,239	14·59	39·11	43·27	70·20	41·79	21·00	52·09	55·93	78·22	51·81
	General means, ...	*c.*	20·08	43·16	26·73	35·76	31·43	31·81	58·86	37·65	43·74	43·01
In the midst of canal irrigation.	8. Sirdhana, ...	12,469	23·10	30·47	16·68	25·02	23·82	27·35	37·77	17·72	29·67	28·13
	9. Baraut, ...	8,404	20·47	24·16	34·62	32·84	28·02	22·49	30·47	50·81	34·51	34·57
	10. Mawana, ...	6,714	21·15	13·26	16·08	11·61	15·52	22·04	19·07	23·82	16·23	20·29
	General means ...	*d.*	21 82	24·35	22·00	24·14	23·08	24·57	30·99	29·27	27·87	28·18

12. From statement No. V., which includes only town statistics, it is seen that those situated in the midst of canal irrigation are actually more free from fever than those at a distance from its influence. Thus in the seven town circles at a distance from irrigation, the mean fever death-rate is 31·43 per mille for the last four years, and only 23·08 in the three towns of Sirdhana, Baraut, and Mawana, with free canal irrigation all round them.

Bagpat, three or four miles from the canal, standing high on the left bank of the Jumna, and with excellent natural drainage to the river, has a higher proportion of deaths than the low-lying Sirdhana, with defective drainage, and its land exposed to free canal irrigation.

It is hard to believe that figures which give such results can be true.

The town of Pilkhuwa, which gave, as reported last year, a mortality from fever of 70 per 1,000, and a mean for four years of 41 from the same malady, seems to call for special attention as to its sanitary condition. I never have had an opportunity of visiting the town, which I understand is low-lying, has no drainage, and is extremely dirty.

13. It is well known that the outbreak of fever which has appeared in this district during and after the rains, since 1870, invaded us from the north-west, from Saharanpur and Muzaffarnagar.

c.—These means have been calculated on a population of 124,866, and on annual fever deaths of 2,507, 5,390, 3,338, and 4,465=15,700 in four years.

d.—Calculated on population of 27,587, and on annual deaths 602, 672, 607, and 666=2,547 in four years, as shown in No. I.

In 1872 it existed in an epidemic form throughout this whole district. The returns in my hands do not extend to 1869 and 1870, when the fever began to reach us from Muzaffarnagar, but what I have to do in a rough way show an invasion and a decline. I give here statement No. VI., showing the ratio of fever mortality since 1871 in the mortuary circles bordering on the Muzaffarnagar district, and also in the circles in the south bordering on the district of Bulandshahr. In the north circles a gradual general decrease is observed (excluding 1872, an epidemic year,) and in the south circles fever appears to be on the increase. On reaching its maximum there, it will return to its usual endemic state, if we may judge of it in this district, from the course it has taken in the two districts north-west of Meerut.

14. But though malarious fevers have been very severe in this district for five successive years, I can find no evidence of the impotence and sterility I have frequently seen referred to in reports on the health of the people in these districts.

No. VI.

Statement showing decreased prevalence of Fever in the northern mortuary circles, and increased in the south circles during the last four years.

	Name of Circle.	1871.	1872.	1873.	1874.
North Circles.	Chaprauli, ...	20·32	17·50	18·73	16·73
	Barauf, ...	20·86	19·06	17·80	15·62
	Daha, ...	14 39	18·01	17·10	15·41
	Sirdhana, ...	21·43	14·56	11·18	19·72
	Daurala, ...	49·60	19·32	12 06	11·38
	Mawana, ...	21·96	21·81	13 53	13·49
	Bahsuma, ...	28·56	22 92	17·42	11·39
South Circles.	Ghaziabad, ...	18·96	33·98	22·58	18·41
	Pilkhuwa, ...	15·81	37·95	19 37	28·02
	Dhaulana, ...	11·82	21·63	31·37	38,58
	Kharkauda, ...	13·49	37·26	31·83	45·25
	Hapur, ...	14·77	29·42	26 80	26 61
	Baxar, ...	9 08	26 09	19·58	26·01
	Put, ...	15·03	22·00	12·82	16·93

Birth statement No. VII. goes to show that the most sickly fever towns are also the most prolific. Pilkhuwa, with its 41 deaths from fever, and 51 from all causes (as per statement No. I.) per mille, gives a birth-rate of 38·81 for the last two years, during which only have I received birth returns from it; and Meerut city, with a mean fever death-rate of 35, and a mean mortality from all causes of 46 per 1,000 since 1871, gives a birth-rate of 34·24 for the last two years, excluding 1872, in which there was obviously most imperfect birth registration in the city of Meerut.

No. VII.

Birth returns of the Municipal towns in the district of Meerut for the last three years.

Number.	Name of Municipality.	Population.	1872. Birth.	1872. Ratio per 1000 of population.	1873. Birth.	1873. Ratio per 1000 of population.	1874. Birth.	1874. Ratio per 1000 of population.	Mean for 3 years.
1	Meerut City, ...	51,991	620	11·92	1,640	31·54	1,921	36·95	26·80
2	Hapur, ...	14,544	288	19·80	515	35·41	535	36 79	30·66
3	Bagpat, ...	7,367	80	10 86	263	35 70	272	36 92	27·83
4	Ghaziabad, ...	10,366	304	29·32	347	33 47	298	28 75	30·51
5	Pilkhuwa, ...	6,235	...	...	233	37·37	251	40·26	38·81
6	Baraut, ...	8,404	108	12·85	326	38·79	308	36·57	29 40
7	Shahdara, ...	7,257	348	47·95	216	28·04	338	46·57	40·85

If there are really sterility and impotence, or either, among the village population, it would seem that a greater prevalence of fever among them than that indicated by the very high death-rates in Pilkhuwa and Meerut are necessary to induce the conditions of unproductiveness.

With reference to the comparatively high birth and death rates at Meerut and Pilkhuwa, it might be objected that they are due to more complete registration than obtains in other towns; but, altogether apart from the returns of mortality received from them, common rumour has singled out these two towns as specially afflicted with fever, and the returns they furnish confirm the rumour. To these two towns may be added Shahdara, which is not only irrigated, but has the waters of the Jumna lying over the whole of the lands surrounding it during the rains. Its mean fever mortality for the last four years was 24·3, and from all causes 41·44 per 1,000; yet its birth-rate is found to be 40·85 per 1,000 for the past three years. Not only are birth-rates of 34·24, 38·81, and 40·85 per 1,000 for Meerut, Pilkhuwa, and Shahdara high comparatively, but, notwithstanding the excessive prevalence of fever in them and their great general mortality, such birth-rates are actually good and not below the normal standard.

Facts like these suggest a more careful inquiry into the existence and alleged cause of impotency.

It has here to be borne in mind that the defects of registration commented on in para. 5 of this memorandum belonged to rural circles as therein stated, and that the remarks have very little application to town circles.

15. Leaving the district mortuary returns, I now come to show the sickness from malarious fevers, &c., at Meerut, for the last ten years among the European and Native troops, the prisoners in jail, and the patients treated at the civil hospital.

I am indebted to the annual returns of the Sanitary Commissioner with the Government of India for the figures bearing on the health of the troops and prisoners for nine years, and to the courtesy of the several Regimental Medical Officers of the different corps now stationed here for the returns of last year.

The points shown in statement No. VIII. were not found in any one of the Sanitary Commissioner's tables, but had to be collected from several of them. On comparing his different tables, I observed in them slight differences in the fever admissions; thus in his table in which he shows the ratio of admissions of the principal diseases he gives the fever ratio among the European troops as in statement No. VIII., whereas in his fever admission table it is 5 per 1,000 higher in 1871, 4 in 1872, and 13 in 1873. I cannot correct the difference nor explain it, except it be that in one table the Sanitary Commissioner includes only the actual admissions of the year, while in the other he probably includes those brought forward from the previous year. Among the Native troops there is no variation. I must also state that Dr. Cuningham's tables differ considerably from those of the Army Medical Department, and that I have no means of reconciling them. The returns given in the Blue Books by the Army Medical Department were practically useless to me, as they do not give details, but only very general results. During the five years from 1865 to 1869 there was no increase from fever among either the European or Native troops, rather a decrease. Among the civil hospital patients there was a tendency to an increase, more marked, however, in the jail population. But during the five years 1870-74 there has been a marked increase of sickness among all the bodies shown in this statement. The ratio of fever admissions rose from 371 per 1,000 of strength in the first five years to 838 in the last five. Among European troops and among Native soldiers the rise was from 357 to 1,108. In the civil hospital the fever increase was from 93 to 201 per 1,000 of total treated; in the central jail the first five years give a mean ratio of 158 per 1,000 of strength, and in the last quinquennial period it is 750 per 1,000. Thus fever has more than doubled among European soldiers and in the civil hospital, more than trebled among the Native soldiers, and more than quadrupled in the central prison. In the European regiments there was a slight increase, during the last five years, of spleen affections, dysentery, and hepatitis, and a decrease of diarrhœa. The admissions from all causes rose from 1,500 to 1,936 per 1,000, and are accounted for by the fever. The deaths fell from 35 to 30 per 1,000 from all causes in the same period.

No. VIII.

Statement showing the ratio of Admissions from Malarious Diseases and from all other causes, and of the Mortality from all causes among the European and Native Troops, Civil Hospital, Central Prison, and District Jail at Meerut for the ten years 1865-74.

Years.	European Troops.								Native Troops.							
	Average strength.	Fever.	Spleen diseases.	Dysentery.	Diarrhœa.	Hepatitis.	Admissions from all causes per 1,000 of average strength.	Death from all causes per 1,000 of average strength.	Average strength.	Fever.	Spleen diseases.	Dysentery.	Diarrhœa.	Hepatitis.	Admissions from all causes per 1,000 of average strength.	Death from all causes per 1,000 of average strength.
1865, ...	1,765	660·7	11·33	42·6	69·2	7·12	1686·7	32·43	633	696·8	...	73·7	91·00	9·5	1472·6	5·68
1866, ...	1,697	380·5	6·00	31·8	32·4	48·6	1377·9	30·71	611	324·5	...	43·2	19·7	7·3	1113·0	7·41
1867, ...	1,779	326·3	9·00	46·3	137·1	29·3	1311·1	33·16	588	427·3	3·4	57·6	13·8	0·6	991·0	7·99
1868, ...	1,818	349·6	7·94	34·6	90·5	23·0	1370·4	17·02	588	171·7	1·08	29·1	12·6	...	634·2	4·93
1869, ...	1,421	277·9	...	97·6	139·3	79·1	1411·0	33·19	570	287·7	1·01	40·2	13·4	...	614·4	11·56
1870, ...	1,393	482·9	9·07	61·9	160·4	79·6	1550·7	27·65	804	804·7	1·13	24·6	24·9	0·6	1417·9	17·41
1871, ...	1,644	772·6	21·29	82·1	161·0	90·6	1935·1	32·51	690	736·8	2·9	70·6	29·1	2·2	1302·3	17·99
1872, ...	1,441	732·0	23·59	51·6	87·0	42·1	1572·9	28·76	646	903·6	2·4	46·1	22·5	...	1299·1	18·05
1873, ...	1,466	696·8	6·73	49·4	107·9	51·6	1573·4	16·39	523	1458·9	13·3	70·0	21·0	4·5	2182·7	9·62
1874, ...	1,491	1467·49	9·77	42·28	102·35	26·47	2484·9	17·44	703	1654·70	42·37	58·93	29·95	1·20	1809·80	14·22
Totals of 10 years, ...	6,661	2,899	46	269	675	456	13,100	286	4,926	5,476	3	519	73	9	4,356	29
Ratio per 1,000 of above, ...	...	217·45	3·09	42·60	108·43	67·63	1280·74	35·13	...	337·48	1·15	48·39	16·15	1·99	2490·34	7·26
Totals of last 5 years, ...	7,594	3,185	66	438	758	473	14,848	228	4,337	6,097	74	268	167	11	7,800	67
Ratio per 1,000 of above, ...	...	419·15	12·21	57·69	199·78	64·18	1954·65	30·02	...	1406·17	17·01	61·68	38·49	2·53	1797·44	13·01

Years.	Civil Hospital.								Central Prison.							District Jail.					
	Total admissions.	Fever.	Spleen diseases.	Dysentery.	Diarrhœa.	Hepatitis.	Death from all causes per 1,000 treated.	Death from all causes per 1,000 of average strength.	Average strength.	Fever.	Spleen diseases.	Dysentery and diarrhœa.	Hepatitis.	Admissions from all causes per 1,000 of mean strength.	Death from all causes per 1,000 of average strength.	Mean strength.	Fever.	Spleen diseases.	Dysentery and diarrhœa.	Hepatitis.	Admissions from all causes per 1,000 of mean strength.	Death from all causes per 1,000 mean strength.
1865, ...	3,602	2022	4·38	9·72	14·58	4·11	13·86	5·88	1,262	1259	2·4	4·76	...	540·6	19·83	...	...	...	...	...	...	...
1866, ...	3,435	1804	7·8	4·0	8·0	1·6	13·10	7·13	1,221	1204	4	4·0	...	513·0	23·75	...	...	...	...	...	...	...
1867, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,272	1269	...	7·91	...	4·39·1	23·76	...	...	...	...	...	...	...	...
1868, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,269	1269	1·8	4·75	...	394·6	24·43	361	130·2	...	19·4	...	332·5	2·22
1869, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,257	1254	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
1870, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,250	1246	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
1871, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,250	1246	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
1872, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,250	1246	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
1873, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,250	1246	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
1874, ...	3,518	2029	4·41	10·01	22·74	1·76	12·91	1,250	1246	1·6	4·78	...	439·9	23·51	371	147·2	...	18·5	...	710·2	26·95
Totals of 10 years, ...	35,210	5,181	235	687	1,655	141	256	6,116	974	6	695	1	3,338	184	673	244	...	37	...	371	11
Ratio per 1,000 of above, ...	...	93·26	4·20	12·36	29·78	2·53	4·60	...	175·29	1·07	12·50	0·17	600·61	33·09	121·09	43·91	...	6·65	...	66·72	1·97
Totals of last 5 years, ...	17,590	10,145	1,028	2,969	5,969	1,029	1,281	30,558	6,223	6	1,077	1	6,023	826	2,232·6	5,413	4	636	4	4,051	316
Ratio per 1,000 of above, ...	1,759·00	1,014·50	102·80	296·90	596·90	102·90	128·10	3,055·80	622·30	0·60	107·70	0·10	602·30	82·60	223·26	541·30	0·40	63·60	0·40	405·10	31·60

Among the Native troops there has been a considerable increase of diseases of the spleen, dysentery, diarrhœa, and hepatitis, and the death-rate has doubled; yet it was only just over half of the European death-rate. In the Civil Hospital there is a similar increase under all these diseases, while the death-rate has slightly fallen there. What is remarkable in the Central Jail returns is the almost total absence of splenic affections, but I understand that they exist in large numbers, though they have not been entered under that head. But the most remarkable feature in the Central Prison admissions is the increase of bowel complaints from 65 per 1,000 to 253 in the last five years.

The death-rate, too, is no less striking. From 1865 to 1870 the mean was 29 per 1,000, whereas from 1870-74 the annual ratio has been 115, which means that in about ten years death alone would empty the jail. This dreadful mortality is chiefly due to diarrhœa and dysentery, as sequelæ of malarious fever. The District Jail has not existed for ten years, and the comparison cannot be made regarding it.

It is observed that while the mean admissions from all causes is higher among the troops, European and Native, than among the prisoners, the mortality of the former is respectively about one-quarter and one-eighth, that of the latter. Experience has shown that any epidemic or endemic disease to which prisoners and the free population are equally exposed would affect the prisoners most severely, owing to the depressing effects and other circumstances of jail life. But apart from this general fact, the position of the Central Prison is on the lowest ground in Meerut, and its drainage was till recently most defective. The District Jail is on high ground, and sickness in it cannot thus be accounted for. Other causes must be sought for; they are not apparent.

I may notice that the years 1867, 1869, and 1872 were years of cholera, but as I am here chiefly concerned with fever admissions, which are not affected by cholera, it is unnecessary to enter on its history and extent in this place.

16. The extent to which each month of the year has, during the last five years, contributed to the admissions from fever among the troops and the civil population is exhibited in statement No. IX. The returns in my hands do not enable me to include the jails here. The mortality from fever among the European soldiers has not increased with the admissions, but it appears slightly otherwise with the Native soldiers and Civil Hospital sick. July, August, September, October, and November are the fever months, *i.e.*, during the rains, and while they are drying up; but it is seen that no month of the year is free from fever, and that from January to June is the most exempt. In statement No. II. it will be seen that the greatest mortality from fever occurred in the same months among the native population as contributed the highest admission rate in statement No. IX. The mortuary returns of the last four years 1871-74 agree in this respect, and the figures need not be given. The greatest prevalence of fever and the greatest mortality are found in the months of July, August, September, October, and November.

No. IX.

Statement showing the Admissions from Malarious Fever in each month and the annual ratio of Admissions and Deaths from it among the European and Native Troops and in the Civil Hospital at Meerut for the last five years 1870 to 1874.

Years.	European Troops.																Native Troops.																Civil Hospital.															
	Average strength for the year in each battalion.	Number of admissions into hospital in each month.												Total admissions of the year.	Admissions per 1,000 of strength.	Number of deaths.	Deaths per 1,000 of strength.	Average strength for the year in each battalion.	Number of admissions into hospital in each month.												Total admissions of the year.	Admissions per 1,000 of strength.	Number of deaths.	Deaths per 1,000 of strength.	Total admissions.	Number of admissions into hospital in each month.												Total admissions of the year.	Admissions per 1,000 of total admissions.	Number of deaths.	Deaths per 1,000 of total admissions.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.						January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.						January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
1870, ...	1,393	9	10	14	21	53	59	89	92	108	75	21	6	558	400·5	6	4·84	804	10	14	49	63	78	88	93	14	37	137	150	82	18	647	804·7	4	4·97	14,240	58	44	52	105	143	130	115	285	390	437	243	80	2,092	146·85	7	·49
1871, ...	1,644	20	14	20	27	59	69	125	221	220	220	119	27	1,362	770·61	4	2·43	690	19	14	40	39	38	38	38	45	153	121	107	41	13	653	736·8	6	8·69	15,740	67	58	76	165	186	218	344	573	780	759	363	154	4,723	169·01	4	·84
1872, ...	1,441	27	48	20	38	68	78	78	219	154	209	56	21	1,000	730·65	4	2·77	646	23	13	19	29	33	63	144	316	202	138	28	1,060	903·6	6	9·29	16,227	101	132	181	197	209	232	753	617	561	294	141	3,766	199·72	10	1·49
1873, ...	1,466	47	28	48	70	91	64	92	170	155	187	113	43	1,008	879·65	4	1·93	523	28	18	19	30	31	63	144	316	202	138	28	1,060	1458·9	6	9·62	16,854	94	149	161	201	209	135	281	560	569	280	101	3,840	180·68	17	1·64
1874, ...	1,491	38	45	62	93	108	109	189	413	458	336	205	100	2,383	1469·45	7	1·56	703	24	17	21	15	23	43	63	104	296	306	239	84	40	1,274	1627·7	6	7·56	17,281	81	58	79	134	195	194	415	1,100	1,063	906	414	216	4,855	214·05	34	1·78

17. It has occurred to me that it would be interesting to trace as far as possible the effects of residence in Meerut on the health of an individual regiment while garrisoned here, as the regimental results hitherto given embrace several corps though treated as one body, and consequently are obtained from a fluctuating population. Accordingly, I have drawn up statement No. X. partly from Dr. Cuningham's tables and partly from figures worked out by myself for the purpose of illustrating continuous residence on the health of a regiment. I have not had time to include in this statement the Native regiments nor the different Batteries of Artillery, as they have been numerous and have been frequently changed. By giving an analysis of this statement and comparing it, as here, with the garrison fever rate, it is seen that no regiment on leaving Meerut had an admission ratio above that of the garrison, except the 105th Regiment during the last two years it was at Meerut.

No. X.

Statement showing ratio of admissions from Malarious Fever and all causes, and of mortality per 1,000 *of mean strength in European Regiments stationed at Meerut from* 1865 *to* 1874.

	Hussars.					*European Infantry.*					Garrison fever ratio.	Remarks.
	Regiment.	Strength.	Malarious fevers.	Admissions from all causes.	Deaths from all causes.	Regiment.	Average strength.	Malarious fevers.	Admissions from all causes.	Deaths from all causes.		
1865	19th Hussars.	470	544·68	2100	16·70	2nd B. Rifle Brigade.	882	488·16	1770	19·27	605	
1866		475	364·21	1670	16·32		807	171·00	1270	14·87	266	
1867		430	262·79	1510	11·63	1-3rd Buffs.	679	405·01	1560	*a.* 195·87	326	
1868		465	681·72	1961·3	23·66		762	257·22	956·7	18·37	348	
1869	4th Hussars.	437	413·56	1505·5	24·07		778	173·52	1461·4	*b.* 39·85	277	
1870		448	346·21	1290·2	22·32		723	478·56	1401·1	23·51	489	
1871		445	182·02	1577·5	8·99	105th Regiment.	776	1085·05	2096·7	32·22	775	
1872		442	271·49	1486·4	61·09		719	859·53	1817·8	*c* 63·98	732	
1873	15th Hussars.	495	642·42	1660·6	8·08	85th Regiment.	896	482·14	1340·4	16 74	686	
1874		418	1514·35	2375·6	16·75		479	1797·49	2789·16	12·52	1,463	

(*a.*) Chiefly due to cholera.
(*b.*) Increased by cholera deaths.
(*c.*) Ditto

The IVth Hussars, after a residence of five years, left with a fever list much below the garrison mean, so much so as almost to cast discredit on the figures, which, however, are quite correct.

The explanation of this very marked difference is, that there was a new surgeon in the regiment who had peculiar notions about fever, and returned large numbers of cases as pneumonia which other medical officers would have called malarious fever simply. I mention this peculiarity to explain the figures; besides this, some medical officers admit all men in any way affected with fever, while others put trivial cases on their convalescent list, and thus the ratio of admissions varies with the different practice in different regiments.

The jail admissions for the last two years are thus affected. An examination of this statement leads me to the conclusion that no regiment has deteriorated in health by its residence here, for were it not so, it would exhibit a ratio of sickness on its departure greater than the other corps in the garrison. I have confined my remarks to fever alone, as it is the principal cause of the admissions.

18. That there has been a great increase of fever at Meerut of late years among all classes of people is most certain and very remarkable; but how to account for the

fact is a very difficult matter. Some attribute it to an increased rainfall, others to defective drainage and canal irrigation, and others again chiefly to a rise in the subsoil water in this station.

A comprehensive view of the facts leaves in my mind great doubts as to the special causation of this outbreak of fever. As to drainage, though very defective in the lines of the Native regiments, in the bazars and native city, while it is so good around the barracks of the European regiments as to require and to be susceptible of little improvement, Meerut has been improved since 1867 by the making of a deep cut north of the station which prevents the Abu Nala from overflowing after heavy rainfalls. This has been effected, and the Abu Nala itself was some years ago slightly improved. The central prison, too, two years ago had a new scheme of drainage carried out; yet in spite of these partial improvements in drainage the fever has gone on increasing.

19. The subsoil water-level has been gradually rising since 1869, if not before. On the 25th September of that year I found the water 14 feet 2 inches below the surface of the ground, as near as I could judge, taking the ground level without any instrument.

The level was probably not correct, but all the observations have been referred to that measurement, and it is really of no consequence for the determination of the rise or fall of the water. The observations were taken in connection with Pettenkofer's theory of cholera, which required only relative rises of the subsoil water to be noted.

I append the daily measurements in a separate form.* On 31st October, 1869, the water was 14 feet below the surface; on the same date in 1870 it was 13 feet 1 inch; in 1871, 12 feet 3 inches; in 1872, 12 feet 1 inch; in 1873, 11 feet 7 inches; and in 1874, 9 feet 5 inches.

* Not printed.

There is thus a gradual rise, most marked in 1874, and the difference between the first and the last measurements is 4 feet 7 inches. Mr. Beresford, Civil Engineer, has been good enough to show in a diagram,† which I append, the results of the observations, which can thus be seen at a glance.

† Not printed.

20. In connection with this rise of the spring level comes the question whether this fact in itself is sufficient to account in any, or to what, degree for the prevalence of fever.

Have accurate observations been made in other places which have gone to show that a rise of the subsoil water has been attended with an increase of sickness? I am not aware of the existence of such facts, but unless there be such, and not mere general statements on the point which are rife enough and heard on all sides, there is no proof of the alleged relation of the facts to each other as cause and effect, though there may be a strong presumption in that direction.

With a high spring level as exists here now during the rainy months (only 5 or 6 feet from the surface in low-lying places), the subsoil for 3 or 4 feet above the water-level becomes perfectly saturated by absorption, and the surface soil also becomes so from the rainfall. In such circumstances we should naturally look for the prevalence of sickness, but without the experience of other stations or localities, no precise inference can be drawn as to the influence on health of a rise in the subsoil water. I have heard a medical officer of great experience confidently express his opinion that when the spring level rises to within 8 feet of the surface, health must be injuriously affected thereby, and he confirmed his opinion by quoting from a recent publication by a high medical authority. But to my mind this is not a simple question of distance; the nature of the subsoil must be considered in determining it.

A clayey subsoil is a bad absorber, and a sandy one absorbs freely. Water therefore standing within 5 or 6 feet of the surface would affect it differently according to the proportion of sand or clay in the subsoil. Observation alone can decide

this point, and exact observations are yet wanting. Besides the nature of the soil, the amount of local rainfall and the temperature would have to be taken into account. Different localities would thus have different heights to which the spring level could rise with impunity, and this line of demarcation between health and sickness might be called the health line.

21. In considering this subject a point has occurred to me which I would here note. Since the spring level has risen here, and water must now percolate into the wells horizontally through strata previously traversed perpendicularly, and since the subsoil in the neighbourhood of barracks, in towns, bazars, and jails is much impregnated with impurities, it seems highly probable that some of the impurities may find their way into the wells and poison them. Rainfall entering wells with a high spring level, especially if the rise has been sudden, is, as it were, passing through a less perfect filter.

For it is manifest that the depth of the natural filter is diminished, and that the most impure and ineffective part of it is only left to act.

A chemical analysis of the well water might now detect deleterious ingredients in it not found before the change of level, and it seems highly desirable to have it so examined, even though the examination should be attended with negative results.

22. A comparison of my meteorological returns since 1869 shows nothing in barometric pressure or temperature to attract notice.

The rainfall varies, but the effects of rainfall on health do not seem well known.

The years 1868 and 1869 were very dry, and in this district and station there was little sickness; but in Saharanpur fever prevailed so as to attract the special notice of Government. It was common to hear then that the fever there was due to the scanty rainfall, and in subsequent years we have constantly heard it assigned to the very opposite cause, a heavy rainfall. I show here in statement No. XI. the rainfall for the last ten years, and the humidity for the past six, during which only meteorological observations have been taken at Meerut.

No. XI.

Statement showing the rainfall for last ten years and the degree of humidity for the last six years.

Months.	Rainfall.				1869.		1870.		1871.		1872.		1873.		1874.	
	1865.	1866.	1867.	1868.	Rainfall.	Mean degree of humidity.	Rainfall.	Mean degree of humidity.	Rainfall.	Mean degree of humidity.	Rainfall.	Mean degree of humidity.	Rainfall.	Mean degree of humidity.	Rainfall.	Mean degree of humidity.
Jany., ...	·55	1·45	·03	1·2	·85	56·2	...	50·0	1·19	64·0	3·3	74·1	·40	60·2	·20	60·6
Feby., ...	1·1	·15	·6	1·2	·66	56·1	...	51·2	2·17	63·5	·90	58 0	...	50·7	1·50	58·1
March,...	1·3	...	·35	·25	2·07	57·5	1·93	55·4	...	44·6	...	53·2	·90	46·7	1·17	55·1
April, ...	...	1·15	·95	·6	...	30·3	·85	43·3	1·00	44·4	·4	45·7	...	32·2	...	42·4
May, ...	1·00	...	·75	·3	...	31·4	·75	32·5	3·73	58·2	·2	57·2	·98	48·5	...	39·2
June, ...	·7	·45	1·65	1·7	·25	39·9	12·55	55·9	6·85	75·6	3·07	56·7	·20	36·1	8·95	68·6
July, ...	·4	6·95	10·03	10·95	7·6	68·6	9·48	81·2	9·79	82·7	8·85	79·5	11·32	76·4	12·98	81·8
August,	7·2	14·3	11·35	·15	3·39	69·0	8·16	79·5	5·85	81·5	8·86	82·2	6·25	78·4	7·92	81·7
Sept., ...	5·8	1·65	6·93	·7	3·83	71·2	3·95	77·7	1·15	76·5	5·2	77·5	7·89	77·7	4·35	77·2
Octr., ...	...	·45	2·02	...	·5	60·2	...	61·6	...	60·1	...	60·4	·92	62·8	...	63 6
Novr., ...	...	...	...	...	...	54·7	...	53·8	...	56·6	...	55·0	...	56·8	...	63·8
Decr., ...	·2	...	·7	...	·25	58·3	...	57·6	1·80	60·5	·58	64·6	·55	63 1	...	61·4
Total,...	18·25	26·55	35·34	17·05	19·4	54·4	37·67	58·3	33·44	64·0	32·06	63·7	29 41	57·4	37·07	62·8

The rainfall for the four years 1865-68 I have obtained from the Magistrate's office. For the correctness of the other six I can vouch. The mean annual rainfall for the first five years was 23·32 inches, and for the last five it has been 33·93 inches,—a marked difference.

But it would not be in harmony with observed facts elsewhere to attribute the sickness to the greater rainfall.

It is worthy of note that the mean annual humidity for the three years 1869-71 was 58·9, and for the past three, 61·3, the increase per cent. being 4·07, and that the rainfall for the respective periods was 30·17 and 32·84, giving an increase per cent. of 8·84 inches for the latter term. It is thus seen that the humidity depends on the rainfall, and that the air is not affected, as might have been supposed it would, by a probable greater exhalation of moisture from the ground due to a rise in the spring level.

If this rise therefore has not given us a more moist atmosphere, it seems to me difficult to understand how it can otherwise have affected health, unless it has poisoned the wells. I consider this an important point, as before noticed.

23. This review is so far unsatisfactory; it leaves us still unable to name with any kind of certainty the special cause or causes to which this outbreak of fever is due, and compels us to assign it, as before, to the mysterious action on health of unknown agents.

That it may be due to canal irrigation, and the obstruction of the natural drainage by the rajbahas, which is admitted to exist in some places, is possible, but it has yet to be proved.

A comparison of statements III. and IV. of this memorandum shows that the death-rate from fever in the parts of the district where irrigation is most free was actually lower than it was in the unirrigated portions. The mean annual fever death-rate in 21 irrigated circles, with a total mortality from fever of 80,117, for the last four years, was 22·80 per 1,000 in a population numbering 878,485 souls directly exposed to the influences of canal irrigation, and 23·73 among 235,399 persons, extending over eight circles, all more or less removed from the influence of canals, and where the total fever deaths numbered 22,342. It may be said in reply that mortuary returns from rural circles are so untrustworthy that no conclusions can be drawn from them.

This may be admitted, and yet it seems strange that the death reporters in the canal districts should be more remiss in their duty than those in places at a distance from canals. One would have expected that the constant visits of European officers to all village lands watered by canals would have had a tendency to keep the chaukidars alive to their duties, and thus bring up the death-rate; yet the death-rate does not reach that of the unirrigated and unfrequented districts.

The objections, however, which may be urged with truth to accepting conclusions drawn from rural death returns have less force when applied to urban mortality. Statement No. V., which takes account of urban populations only, brings out even more forcibly than III. and IV. a lower fever mortality in towns bordering on canals than in towns distant from them. Canal towns give 23·08, and towns distant from canals 31·43 per 1,000 as an annual mean fever death-rate during four years, and the respective death-rates from all causes for the same period in these two groups are 28·18 and 43·01 from a mortality of 3,110 and 21,484 respectively, and among a population of 27,587 and 124,866 in the two groups. According to these figures canal towns are very considerably more healthy than others.

It may then be fairly maintained that the alleged evil effects of canal irrigation and of obstructive rajbahas derive no support from either rural or urban mortuary returns, and that the more complete the returns are, the more marked is the salubrity of the irrigated districts, the ratio in favor of canals being highest when towns are compared.

It will be allowed that this proposition is at least equally, or even more tenable than the reverse, and no more is here claimed; but if this concession must be made by the opponents of canals, on what grounds can they continue to affirm that canal

irrigation, and intercepted drainage, is the cause of the sickness and mortality that have been so great for years past. An enthusiastic irrigation officer would not possibly consent to leave the matter in this neutral state, but would urge that he has much more reason to claim greater salubrity for irrigated places than his opponent to maintain the opposite proposition.

24. It would appear, *a priori*, that canal irrigation properly carried on would be beneficial to health in a climate like this by lowering the very high temperature in the hot season and increasing the prosperity of the people, and thereby enabling them to provide better for the wants of the cold season. To obtain its full benefits efficient drainage is necessary; but what probably is a more prolific source of malaria than obstructive rajbahas, are the numerous swamps connected with nadis and pools of stagnant water surrounding villages. The origin of malarious fever in the Duab, however, is, I fear, little under control of rajbahas. The evolution of malaria from the khadirs of the Ganges and of the Jumna is sufficient to poison the whole intervening country. To remove all the rajbahas to-morrow would not put an end to fever, which would doubtless continue to re-appear as it did before even the construction or existence of canals.

25. For it must not be forgotten in discussing this subject that there is a history of malarious fever in these districts, and throughout the Duab, long anterior to the action of canals in it. One peculiar feature of these outbreaks which appeared from time to time, and were attended with great mortality, is their duration for four or five years.

We are unable, owing to imperfect records, to follow their course as satisfactorily as we can the present fever.

26. In the years 1817-21 there was a severe epidemic of malarious fever in these districts, and ten years later another. Again in 1843 it re-appeared in a severe form, and Government appointed a committee in 1845 to report on the nature and the cause of the fever. Dr. Dempster, of the Bengal Medical Service, was the medical member of the committee. The committee had great difficulties to contend with, from the want of statistics of any sort bearing on the health of the people. In this respect they were worse off even than we are now.

This absence of statistics prevented them from comparing the sanitary condition of the inhabitants of different localities in the districts. They were, however, of opinion that sickness "was generally, though not universally, more prevalent and severe" "in the canal-irrigated districts," "than in other situations." These remarks refer to the Jumna canals, chiefly the west. They found the fever to be malarious.

27. In Appendix D. to their report the committee give an "abstract showing the comparative salubrity of seven different military stations in the North-Western Provinces from 1825 to 1844."

They remark that the returns from Meerut and Dehli "are stated to be inaccurate," which is a matter for much regret with reference to exact comparison. It is not probable, however, that an efficient committee allowed much error to enter into their returns. Among the European troops at Meerut the percentage of admissions is given as 206, 175, 152, and 145 for the four fever epidemic years 1827-30, with a mortality per cent. of 3·2, 3·5, 3·2, and 2·5; and for the four fever years 1841-44 the respective percentages are shown as 172, 346, 293, and 307, and 3·5, 3·6, 4·0, and 3·6. From 1849-52 fever was again prevalent in the upper part of the Duab, from Meerut to Dehli on the east, on to Lahore and Gujrat on the west, and is referred to by Dr. Bryden in his report on the cholera of 1866-68, p. 72.

28. All this sickness and mortality from fever, be it observed, occurred in the district and station of Meerut before the opening of the Ganges Canal in 1854. It is also particularly worthy of notice that during the past ten years the maximum percentage of admissions reached among the European soldiers, as seen in statement

No. VIII., was 249 last year, whereas for the three years of 1842, 1843, and 1844 the percentage of admissions reached the enormous rates of 346, 293, and 307, figures which indicate a very much greater amount of sickness at Meerut in times anterior to the existence of the Ganges Canal than any which is recorded since. Is it then in accordance with observed facts to state that the fever from which the district and station of Meerut have been suffering for the last few years is caused by canal irrigation and intercepting rajbahas, or a rise of the spring level, or by a combination of all these conditions? It is surely unphilosophical to call in a new cause to account for the prevalence of fever known to have raged in an aggravated form many years before the existence of the assumed cause.

29. It is not at Meerut only that the prevalence of fever can be shown to have been as great before the birth of canals as after it. Dr. Garden, then Civil Surgeon of Saharanpur, wrote a report in 1872, in which he quotes from medical records proofs that the severity of fever in the town and district of Saharanpur was as great before the opening of the Eastern Jumna Canal in 1830 as at any subsequent time. His observations on this head are quite in harmony with what I find in regard to Meerut, and the wider the induction of facts, the more convincing is the conclusion from them.

30. The dispensary returns for the two years 1861 and 1862 show a great amount of fever among the people in this and adjoining districts, probably attributable to the famine of the former year. But the history of the present outbreak is that it began in the districts of Saharanpur and Muzaffarnagar in 1867, ran its course and terminated in the former district in 1872, and in the latter in 1873, after a duration in each of five years. It entered this district in 1870, and has for the last three years been invading Bulandshahr and Aligarh to the south of Meerut, as their mortuary returns show.

On its first appearance in the district of Saharanpur in 1867, such were the suffering and death from it that Government deputed the late Mr. H. Cutcliffe, F.R.C.S., to report on the fever. He found it to be malarious, and that it was not restricted to the vicinity of canals; "that in most places where excessive sickness and mortality prevailed, there was in juxtaposition to them, not only a canal, but the pestiferous beds of nadis or swamps." But on the whole his opinion seems to have been that the canals played an important part in the evolution of malaria: a conclusion which in the main agrees with the results arrived at by the committee of 1845. In his remarks on the "sanitation of the fever" he assigns reasons why there should be less fever in the district of Meerut than in Muzaffarnagar and Saharanpur. Time has not verified these observations, and shows of how little value general impressions are in matters of this sort when unsupported by figures. Since then Meerut has had its days of suffering, not surpassed by the miseries of its north-west neighbours in 1867 and subsequent years.

31. It would thus seem that, as far back as our records go, malarious fever has presented itself in these districts in an epidemic form in cycles of eight or ten years, and that each attack runs its course four or five years, independently, as it would appear, of canal influence altogether. Periodicity is evidently its law, not only when it attacks an individual patient who has a cold, a hot, and a sweating stage, which may be repeated on one or more successive days, as is well known to all, but further than this, great outbreaks of the disease, in this Duab, seem also to be guided by periodic laws. It runs through its stage of invasion, maximum intensity, and decline in the course of four or five years, and all the facts, as I can gather them, and read them, go to show that we are now passing through one more of these malarious cycles.

32. It is felt that this memorandum must now draw to a close, though the discussion of this most interesting subject has been little more than entered on. It is hoped that the facts adduced are sufficient to show that those who attribute the prevailing sickness to the influence of canal irrigation are unable to make good that proposition.

The results of this enquiry are against them, and little more is here contended for than that the assertions one constantly hears and sees are at present not warranted by the facts. Data do not exist to enable us to determine with probable certainty the effects of canal irrigation on the health of the people. Even perfect mortuary returns would not suffice for the settlement of the question. Many other points would have to be considered. Among these, one of the chief is drainage. The history of different countries, and of different ages, proves that good drainage has expelled ague, and doubtless what is wanted now is the same efficient drainage.

With this in operation it would probably no longer be found necessary to speculate on the influence of canals on health, nor on the alleged causes of ague.

But at this point arises the truly important question, whether the drainage of the Duab is a feasible scheme for Government to entertain. Can we reasonably expect Government to make the surface drainage of the whole country as good or better than that of the station of Meerut with all its defects?

Unless this can be done, it is feared there is no room left to believe that the periodic recurrence of cycles of malarious fever is a thing of the past. The topography and the climate cut off the hope, though the execution of extensive drainage works in slow and winding nadis, in large swamps, and stagnant village pools will probably lead to the production of a milder type of fever.

33. It seems unnecessary to raise any discussion regarding the nature of the fever. All who have observed it, or treated it, Civil Surgeons, Military Surgeons, Superintending Surgeons, Special Committees, and Sanitary Commissioners alike, have found it malarious.

Among none of the patients belonging to Meerut, nor among the police brought in for treatment from all quarters of this district during the course of this epidemic, have I found true enteric or typhoid fever in a single instance.

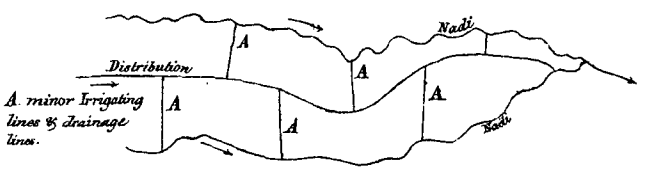
W. MOIR, M.B., A.M.,
Civil Surgeon.

MEERUT,
The 22nd January, 1875.

APPENDIX II.

EVILS RESULTING FROM CANAL IRRIGATION.

An important question of the present day in connection with irrigation from canals is how the evil effects are to be mitigated. These effects are many, of which the more important are an extraordinary rise of the spring level of the country and the over-saturation of the soil. Of these evils the latter is so great in some districts that complete tracts of land are being converted into marsh, and the first observation which anybody makes on re-visiting a canal-irrigated district after an absence of five or six years is to the effect that the soil is much more damp than it used to be. The remedy for this latter evil is an easy one, *viz.*, the conversion of all flush irrigation into lift. If it was made a point in all projects that flush irrigation should be avoided and the distributaries kept in soil, so as to render lift irrigation a necessity, the fields would never be swamped, for the cultivators never throw up more water into their fields than is necessary, but where able to let a flow in they give a great deal too much. If anybody doubts the latest statement he has only to inspect indigo fields which are being flush irrigated in May or June. This conversion of flow into lift would be resisted by the majority of canal men, who look rather to the direct gains to the canal than to the improvement of the country through which the canal passes. To the statement which many make, that in some districts a conversion of flush irrigation into lift would be followed by the total abandonment of canal water, the answer is simple, that in such districts canal water ought not to be sent while districts do exist in which lift irrigation would be considered a great boon. Besides preventing the swamping of lands, the conversion of flush into lift irrigation would necessitate the distributaries being always in digging and not in embankment. By their being in digging all interception of drainage water would be avoided, which is a most important consideration, for at present, while the system of flush irrigation is in favour, distributaries are everywhere in embankment, and wherever drainage lines are crossed syphons have to be constructed; thus water which was accustomed to flow over a tract of country quarter of a mile in width, has to make its way through an opening 6 feet wide, and in doing so takes six or seven days, while otherwise it would only have taken 24 hours. The general results are that in all such places there are no rain crops, or if there are, they are generally destroyed; for while they could have stood a day's swamping, they have rotted away while standing six or seven days in water. Now if the distributaries were in digging all intercepted drainage would flow at once into the distributary, owing to the fall, and be discharged into nadis at the next escape. In short, if it was made a rule that there should be no flush irrigation, but only lift, distributaries would act as irrigating lines in the dry season and as drainage lines in the rains. The water being always below the surface level of the country, and never let in profusion into the fields, coupled with the fact that rain water would never lie for weeks on low tracts, there would not be an unnatural rise of the spring level, while a few deep drains from the distributary, acting both as irrigating lines and drainage cuts, would counteract all remaining evils.



The fact of water used in lift irrigation going much further than what it does in flush could be set-off against flush bringing a larger duty than lift irrigation per acre. Lift irrigation would find employment continually for a very large number of coolies. Lines in digging are far cheaper to construct than lines in embankment. In digging the very objectionable practice of digging pits deep on either side of the distributary is avoided, while in lines in embankment this is a serious evil, forming large swamps in some localities.

The one objection which might with reason be brought against a line in digging is the fact that it is not so effective as a line in embankment from which flush irrigation is obtained, and especially so in famine years, owing to lift irrigation being much slower than flush irrigation. This question I cannot fully answer, as I have never known a famine year; but in 1873-74 there was not any rain in the Etawah district between October and June, and yet the high lands of my sub-division, where there is only lift irrigation, were as thoroughly irrigated as the low lands, and there was not a single complaint. In country where there is *reh*, flush irrigation and lines in embankment result in the land being surely and by no means slowly ruined by the rising of the spring level from 20 fee tbelow the surface to within 6 feet; the spring level rising brings up with it the soluble alkali, which soon makes its appearance on the surface in fields which originally were without it (of parganas Phaphund and Bharthna in Etawah, and Konara village in pargana Shikohabad, Mainpuri). Well water becomes cold instead of being warm, and is not nearly so good for the crops which are irrigated with it. In some localities certainly, where there are deep ravines and nalas, as the tracts bordering the Jumna, &c., lines in embankment do no harm, but in interior districts, as parts of the Mainpuri and Etawah districts, the country is being completely destroyed. I speak only of places which I know personally.

A distributary is a rajbaha.
A rajbaha in embankment is one raised up to give flush irrigation.
A rajbaha in digging gives lift irrigation.

W. WILLCOCKS.

ETAWAH :
The 23rd December, 1874.

APPEN

ANNUAL

Deaths registered in the different Districts of the

1.	2.	3.	4.			5.	
Number.	Division.	District.	Population according to census of 1872.			Area in square Miles.	
			Male.	Female.	Total.	Miles.	Acres.
1	Kumaun.	Kumaun, ...	231,146	201,742	432,888	6,000	...
2		Garhwal, ...	155,745	154,537	310,282	5,500	...
3		Tarai, ...	102,573	83,074	185,647	919	633
4	Rohilkhand.	Bijnor, ...	395,395	341,757	737,152	1,902	603
5		Moradabad, ...	596,776	525,355	1,122,131	2,271	582
6		Bareilly, ...	806,913	699,888	1,506,801	2,982	110
7		Shahjahanpur, ...	511,136	438,335	949,471	1,723	320
8		Budaun, ...	503,619	430,729	934,348	2,084	536
9	Meerut.	Dehra Dun, ...	68,044	47,667	115,711	1,020	471
10		Saharanpur, ...	484,508	399,274	883,782	2,217	...
11		Muzaffarnagar, ...	375,608	314,474	690,082	1,659	229
12		Meerut, ...	685,404	588,510	1,273,914	2,360	264
13		Bulandshahr, ...	493,682	442,911	936,593	1,910	...
14		Aligarh, ...	577,263	495,845	1,073,108	1,963	455
15	Agra.	Etah, ...	382,746	320,739	703,485	1,512	...
16		Muttra, ...	480,615	406,740	887,355	1,611	498
17		Farukbabad, ...	499,722	419,026	918,748	1,744	473
18		Mainpuri, ...	426,955	338,828	765,783	1,696	186
19		Agra, ...	589,562	504,622	1,094,184	1,907	339
20		Etawah, ...	369,928	298,653	668,581,	1,691	...
21	Allahabad.	Cawnpore, ...	619,118	536,321	1,155,439	2,336	536
22		Fatehpur, ...	345,583	318,282	663,815	1,585	435
23		Jaunpur, ...	545,700	480,169	1,025,869	1,556	...
24		Hamirpur, ...	276,196	252,941	529,137	2,286	384
25		Banda, ...	359,765	337,846	697,611	2,908	439
26		Allahabad, ...	715,110	679,135	1,394,245	2,747	190
27	Benares.	Gorakhpur, ...	1,078,072	941,278	2,019,350	4,578	508
28		Basti, ...	784,691	688,308	1,472,994	2,789	...
29		Azamgarh, ...	826,145	705,265	1,531,410	2,565	...
30		Ghazipur, ...	696,572	648,829	1,345,401	2,167	600
31		Benares, ...	406,344	387,355	793,699	996	121
32		Mirzapur, ...	520,496	494,797	1,015,293	5,217	313
33	Jhansi.	Jalaun, ...	216,607	187,777	404,384	1,553	...
34		Jhansi, ...	167,519	150,216	317,735	1,567	...
35		Lalitpur, ...	111,625	101,003	212,628	1,947	264
		Total for the Province, ...	16,406,833	14,362,223	30,769,056	81,402	529

DIX A.

FORM No. I.

North-Western Provinces, during the year 1874.

6.	7.			8.			9.	10.
Average population per square mile.	*Number of Deaths registered.*			*Ratio of Deaths per* 1,000 *of the population.*			Mean ratio of deaths per 1,000 during previous five years.	Number.
	Male.	Female.	Total.	Male.	Female.	Total.		
72	3,830	3,002	6,832	16·57	14·88	15·78	18·91	1
56	3,282	2,788	6,070	21·07	18·04	19·56	19·63	2
202	2,891	2,397	5,288	28·18	28·85	28·48	37·26	3
388	8,042	6,940	14,982	20·34	20·30	20·32	22·57	4
494	12,942	11,004	23,946	21·69	20·94	21·34	20·97	5
505	14,525	12,201	26,726	18·00	17·43	17·73	21·59	6
551	12,804	11,204	24,008	25·05	25·56	25·28	28·15	7
466	11,300	9,280	20,580	22·43	21·54	22·02	16·12	8
114	1,145	717	1,862	16·82	15·04	16·09	13·52	9
399	8,928	7,676	16,604	18·43	19·22	18·78	28·54	10
416	8,547	7,157	15,704	22·75	22·75	22·75	28·62	11
541	18,305	15,872	34,177	26·70	26·97	26·82	25·78	12
490	17,771	16,812	34,583	35·99	37·95	36·92	26·35	13
547	12,496	10,704	23,200	21·64	21·58	21·62	18·74	14
465	8,484	7,109	15,593	22·17	22·16	22·16	20·49	15
551	7,758	6,471	14,229	16·14	15·91	16·03	17·67	16
527	9,937	7,877	17,814	19·88	18·79	19·39	15·44	17
452	10,280	8,179	18,459	24·07	24·14	24·10	19·99	18
575	11,631	9,579	21,210	19·72	18·98	19·38	20·07	19
395	10,535	8,741	19,276	28·47	29·27	28·83	19·44	20
495	17,236	14,793	32,029	27·84	27·58	27·72	25·12	21
419	7,174	5,922	13,096	20·76	18·60	19·73	20·63	22
659	9,939	7,532	17,471	18·21	15·68	17·03	16·67	23
232	6,578	4,775	11,353	23·82	18·87	21·45	26·27	24
240	8,179	6,317	14,496	22·62	18·69	20·78	22·09	25
508	12,889	10,684	23,573	18·02	15·73	16·90	15·39	26
441	35,518	23,988	59,506	32·94	25·48	29·46	15·98	27
528	11,334	8,141	19,475	14·44	11·82	13·22	13·58	28
597	21,222	16,874	38,096	25·68	23·92	24·87	13·15	29
621	15,790	12,735	28,525	22·67	19·62	21·20	15·63	30
797	7,360	5,541	12,901	18·11	14·30	16·25	18·02	31
195	11,623	9,719	21,342	22·33	19·64	21·02	17·33	32
260	5,740	4,054	9,794	26·49	21·59	24·22	20·65	33
203	2,924	2,244	5,168	17·45	14·93	16·26	27·49	34
109	2,331	1,960	4,291	20·88	19·40	20·18	22·51	35
378	371,270	300,989	672,259	22·62	20·95	21·84	19·77	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns,	*Population according to Census of* 1872.		
			Male.	Female.	Total.
1	KUMAUN, ...	Total of District containing 8 Circles, ...	23,146	201,742	432,888
2	GARHWAL, ...	Total of District containing 12 Circles, ...	155,745	154,537	310,282
3	TARAI, ...	Kashipur T., ...	6,783	6,438	13,221
4		In the 9 Rural Circles, ...	95,790	76,636	172,426
		Total of District, ...	102,573	83,074	185,647
5	BIJNOR, ...	Nagina T., ...	9,981	9,715	19,696
6		Najibabad T., ...	10,091	9,565	19 656
7		Bijnor T., ...	7,071	5,995	1,3066
8		Sherkot T., ...	6,353	6,233	12,586
9		Chandpur T., ...	6,170	5,863	12,033
		Total of Towns, ...	39,666	37,371	77,037
10		In the 27 Rural Circles, ...	355,729	304,386	660,115
		Total of District, ...	395,395	341,757	737,152
11	MORADABAD, ...	Moradabad T., ...	30,664	29,202	59,866
12		Sambhal T., ...	17,095	17,544	34,639
13		Amroha T., ...	16,827	17,952	34,779
14		Chandausi T., ...	12,561	10,979	23,540
		Total of Towns, ...	77,147	75,677	152,824
15		In the 22 Rural Circles, ...	519,629	449,678	969,307
		Total of District, ...	596,776	525,355	1,122,131
16	BAREILLY, ...	Bareilly T., ...	46,269	44,422	90,691
17		Pilibhit T., ...	15,138	14,702	29 840
18		Aonla T., ...	58,40	5,313	11,153
		Total of Towns, ...	67,247	64,437	131,684
19		In the 27 Rural Circles, ...	739,666	635,451	1,375,117
		Total of District, ...	806,913	699,888	1,506,801
20	SHAHJAHANPUR, ...	Shahjahanpur T., ...	40,241	39,246	79,487
21		In the 23 Rural Circles, ...	470,895	399,089	869,984
		Total of District, ...	511,136	438,335	949,471
22	BUDAUN, ...	Budaun T., ...	15,533	15,694	31,227
23		Sahaswan T., ...	8,616	8,445	17,061
		Total of Towns, ...	24,149	24,139	48,288
24		In the 18 Rural Circles, ...	479,470	406,590	886,060
		Total of District, ...	503,619	430,729	934,348
25	DEHRA DUN, ...	Total of District containing 6 Circles, ...	68,044	47,667	115,711

DIX B.
FORM No. II.
North-Western Provinces, during each month of the year 1874.

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year* 1874. Male.	Female.	Total.	Number.
509	446	396	409	585	939	864	747	615	451	430	441	3,830	3,002	6,832	1
360	627	294	673	524	966	33	475	661	529	881	45	3,282	2,788	6,070	2
27	12	16	23	28	20	22	27	41	37	43	22	182	136	318	3
399	255	268	337	490	359	284	306	407	632	701	532	2,709	2,261	4,970	4
426	267	284	360	518	379	306	333	448	669	744	554	2,891	2,397	5,288	
13	13	12	13	25	43	25	34	28	33	18	20	136	141	277	5
26	21	23	24	41	34	32	24	23	46	46	42	218	164	382	6
29	12	12	16	42	24	38	33	31	40	27	26	168	162	330	7
15	11	17	16	26	30	24	20	24	37	22	31	152	121	273	8
31	17	25	33	24	30	15	29	24	23	13	15	142	137	279	9
114	74	89	102	158	161	134	140	130	179	126	134	816	725	1,541	
1,024	678	767	1,031	1,640	1,239	963	1,088	1,084	1,292	1,418	1,227	7,226	6,215	13,441	10
1,138	752	856	1,133	1,798	1,400	1,087	1,228	1,214	1,471	1,544	1,361	8,042	6,940	14,982	
97	67	82	92	83	111	151	168	230	205	190	170	874	772	1,646	11
90	54	70	75	118	68	108	136	118	133	81	53	578	526	1,104	12
74	51	87	87	130	95	82	86	96	89	86	69	545	487	1,032	13
40	32	27	41	45	49	78	84	84	78	49	43	367	283	650	14
301	204	266	295	376	323	419	474	528	505	406	335	2,364	2,068	4,432	
1,367	959	1,121	1,348	1,825	1,388	1,528	2,010	2,150	2,536	1,889	1,393	10,578	8,936	19,514	15
1,668	1,163	1,387	1,643	2,201	1,711	1,947	2,484	2,678	3,041	2,295	1,728	12,942	11,004	23,946	
240	196	204	174	218	168	186	262	266	240	223	201	1,248	1,330	2,578	16
49	36	43	46	60	40	36	54	43	55	59	38	320	239	559	17
102	33	68	81	107	53	89	115	122	121	133	128	663	489	1,152	18
391	265	315	301	385	261	311	431	431	416	415	367	2,231	2,058	4,289	
1,541	1,168	1,564	1,510	1,919	1,637	1,455	1,942	2,521	2,611	2,656	1,913	12,294	10,143	22,437	19
1,932	1,433	1,879	1,811	2,304	1,898	1,766	2,373	2,952	3,027	3,071	2,280	14,525	12,201	26,726	
86	63	57	126	252	164	203	214	236	178	140	123	958	884	1,842	20
1,486	1,173	1,501	1,880	2,026	1,675	1,727	2,412	2,235	2,504	1,927	1,670	11,846	10,320	22,166	21
1,572	1,236	1,558	1,956	2,278	1,839	1,930	2,626	2,471	2,682	2,067	1,793	12,804	11,204	24,008	
20	39	34	23	62	48	100	161	131	123	112	105	503	455	958	22
38	26	36	49	39	20	39	78	56	62	50	48	287	254	541	23
58	65	70	72	101	68	139	239	187	185	162	153	790	709	1,499	
1,251	943	1,006	1,050	1,489	1,246	1,443	2,409	2,349	2,532	1,791	1,562	10,510	8,571	19,081	24
1,319	1,008	1,076	1,122	1,590	1,314	1,582	2,648	2,536	2,717	1,953	1,715	11,300	9,280	20,580	
166	116	130	88	252	165	147	158	159	145	194	142	1,145	717	1,862	25

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
26	SAHARANPUR, ...	Saharanpur T., ...	23,854	21,165	45,019
27		Deobund T., ...	10,131	9,252	19,383
28		Gangoh T., ...	5,728	5,254	10,982
29		Roorkee T., ...	6,550	4,228	10,778
		Total of Towns, ...	46,263	39,899	86,162
30		In the 22 Rural Circles, ...	438,245	359,375	797,620
		Total of District, ...	484,508	399,274	883,782
31	MUZAFFARNAGAR, ...	Kairana T., ...	9,117	8,625	17,742
32		Kandhla T., ...	5,799	5,227	11,026
33		Muzaffarnagar T., ...	6,105	4,688	10,793
		Total of Towns, ...	21,021	18,540	39,561
34		In the 25 Rural Circles, ...	354,587	295,934	650,521
		Total of District, ...	575,608	314,474	690,082
35	MEERUT, ...	Meerut T., ...	27,383	24,608	51,991
36		Hapur T., ...	7,601	6,943	14,544
37		Sardhana T., ...	6,508	5,961	12,469
		Total of Towns, ...	41,492	37,512	79,004
38		In the 40 Rural Circles, ...	643,912	550,998	1,194,910
		Total of District, ...	685,404	588,510	1,273,914
39	BULANDSHAHR, ...	Khurja T., ...	13,770	13,088	26,858
40		Sikandarabad T., ...	9,514	8,835	18,349
41		Bulandshahr T., ...	7,730	7,082	14,812
42		Shikarpur T., ...	5,798	5,540	11,338
		Total of Towns, ...	36,812	34,545	71,357
43		In the 29 Rural Circles, ...	456,870	408,366	865,236
		Total of District, ...	493,682	442,911	936,593
44	ALIGARH, ...	Aligarh or Koil T., ...	29,697	26,149	55,846
45		Hathras T., ...	16,528	14,372	30,900
46		Atrauli T., ...	8,095	7,527	15,622
47		Sikandra Rao T., ...	5,668	5,146	10,814
		Total of Towns, ...	59,988	53,194	113,182
48		In the 28 Rural Circles, ...	517,275	442,651	959,926
		Total of District, ...	577,263	495,845	1,073,108

DIX B.

FORM No. II.

North-Western Provinces, during each month of the year 1874.—(continued.)

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year* 1874.			Number.
												Male.	Female.	Total.	
87	63	77	71	113	106	101	137	153	127	97	80	655	557	1,212	26
26	19	28	29	46	36	51	56	52	52	35	38	245	223	468	27
23	7	21	24	35	23	26	42	47	32	35	34	172	177	349	28
6	5	10	12	25	8	17	22	11	10	14	13	91	62	153	29
142	94	136	136	219	173	195	257	263	221	181	165	1,163	1,019	2,182	
1,032	784	880	882	1,436	1,302	1,116	1,387	1,208	1,534	1,628	1,233	7,765	6,657	14,422	30
1,174	878	1,016	1,018	1,655	1,475	1,311	1,644	1,471	1,755	1,809	1,398	8,928	7,676	16,604	
28	28	24	13	33	26	25	55	95	113	68	70	300	278	578	31
24	11	22	25	29	35	38	44	54	38	36	12	182	181	363	32
22	20	20	19	21	31	19	26	28	32	25	23	152	134	286	33
74	59	66	57	83	92	82	125	177	178	129	105	634	593	1,227	
1,101	807	784	821	1,225	1,224	1,137	1,372	1,497	1,801	1,373	1,335	7,913	6,564	14,477	34
1,175	866	850	878	1,308	1,316	1,219	1,497	1,674	1,979	1,502	1,440	8,547	7,157	15,704	
107	105	92	113	139	131	147	305	408	453	330	219	1,272	1,277	2,549	35
37	27	30	22	42	29	26	116	149	173	101	55	401	406	807	36
9	20	23	25	32	19	18	48	61	39	43	33	192	178	370	37
153	152	145	160	213	179	191	469	618	665	474	307	1,865	1,861	3,726	
1,701	1,437	1,450	1,529	1,890	1,620	1,554	3,358	4,564	4,828	3,524	2,996	16,440	14,011	30,451	38
1,854	1,589	1,595	1,689	2,103	1,799	1,745	3,827	5,182	5,493	3,998	3,303	18,305	15,872	34,177	
56	32	44	36	48	51	117	357	764	704	442	223	1,324	1,550	2,874	39
44	54	49	35	52	60	85	134	148	199	179	107	538	608	1,146	40
21	21	32	15	30	30	50	95	172	308	316	168	588	670	1,258	41
8	10	7	9	10	11	12	35	25	31	12	14	93	91	184	42
129	117	132	95	140	152	264	621	1,109	1,242	949	512	2,543	2,919	5,462	
1,213	967	1,179	1,111	1,281	1,349	1,486	3,457	4,414	6,146	4,021	2,497	15,228	13,893	29,121	43
1,342	1,084	1,311	1,206	1,421	1,501	1,750	4,078	5,523	7,388	4,970	3,009	17,771	16,812	34,583	
110	80	91	91	120	107	146	195	205	235	199	166	863	882	1,745	44
82	63	57	53	132	119	114	145	181	202	141	107	728	668	1,396	45
31	20	38	28	37	39	40	142	49	53	39	31	260	267	547	46
...	44	14	8	8	17	23	24	25	23	40	29	133	122	255	47
223	207	200	180	297	282	323	506	460	513	419	333	2,004	1,939	3,943	
1,046	851	1,020	854	1,124	1,095	11,89	1,852	2,400	3,177	2,858	1,781	10,492	8,765	19,257	48
1,269	1,068	1,220	1,034	1,421	1,377	1,512	2,358	2,860	3,690	3,277	2,114	12,496	10,704	23,200	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
49	ETAH, ...	Kasganj T., ...	8,393	7,371	15,764
50		Soron T., ...	7,093	6,565	13,658
		Total of Towns, ...	15,486	13,936	29,422
51		In the 18 Rural Circles, ...	367,266	306,803	674,063
		Total of District, ...	382,746	320,739	703,485
52	MUTTRA, ...	Muttra T., ...	32,963	30,468	63,431
53		Brindaban T., ...	10,965	10,039	21,004
54		Kosi T., ...	6,568	6,202	12,770
		Total of Towns, ...	50,496	46,709	97,205
55		In the 27 Rural Circles, ...	430,119	360,031	790,150
		Total of District, ...	480,615	406,740	887,355
56	FARUKHABAD, ...	Farukhabad T., ...	38,249	37,702	75,951
57		Kanauj T., ...	8,772	8,321	17,093
58		Kaimganj T., ...	5,287	5,036	10,323
		Total of Towns, ...	52,308	51,059	103,367
59		In the 26 Rural Circles, ...	447,414	367,967	815,381
		Total of District, ...	499,722	419,026	918,748
60	MAINPURI, ...	Mainpuri T., ...	9,723	8,878	18,601
61		Shikohabad T., ...	5,367	4,702	10,069
		Total of Towns, ...	15,090	13,580	28,670
62		In the 17 Rural Circles, ...	411,865	325,248	737,113
		Total of District, ...	426,955	338,828	765,783
63	AGRA, ...	Agra T., ...	80,804	69,873	150,677
64		Jalesar T., ...	7,640	7,262	14,902
65		Firozabad T., ...	7,058	6,730	13,788
		Total of Towns, ...	95,502	83,865	179,367
66		In the 35 Rural Circles, ...	494,060	420,757	914,817
		Total of District, ...	589,562	504,622	1,094,184
67	ETAWAH, ...	Etawah T., ...	16,344	14,205	30,549
68		In the 20 Rural Circles, ...	355,584	284,448	638,032
		Total of District, ...	369,928	298,653	668,581

DIX B.

FORM No. II.

North-Western Provinces, during each month of the year 1874.—(continued.)

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year* 1874. Male.	Female.	Total.	Number.
27	39	35	32	36	27	48	63	77	123	70	55	321	311	632	49
23	10	6	8	22	30	14	34	54	78	73	41	194	194	388	50
50	49	41	40	58	57	62	97	131	196	143	96	515	505	1,020	
1,135	678	1,041	936	973	971	930	1,614	1,620	2,074	1,519	1,082	7,969	6,604	14,573	51
1,185	727	1,082	976	1,031	1,028	992	1,711	1,751	2,270	1,662	1,178	8,484	7,109	15,593	
134	126	124	122	148	160	161	215	191	200	217	193	1,046	945	1,991	52
45	37	21	25	51	36	47	108	108	162	129	90	418	441	859	53
15	10	18	13	19	20	25	31	34	36	36	38	145	150	295	54
194	173	163	160	218	216	233	354	333	398	382	321	1,609	1,536	3,145	
861	628	629	642	782	824	691	1,042	1,224	1,556	1,101	1,104	6,149	4,935	11,084	55
1,055	801	792	802	1,000	1,040	924	1,396	1,557	1,954	1,483	1,425	7,758	6,471	14,229	
...	...	...	...	...	...	123	171	205	242	133	148	510	512	1,022	56
...	...	...	...	...	...	14	35	...	34	19	23	67	58	125	57
...	...	...	...	...	...	12	17	14	18	13	21	54	41	95	58
...	...	...	...	...	...	149	223	219	294	165	192	631	611	1,242	
1,213	1,046	1,245	1,350	1,245	1,196	997	1,347	1,619	2,312	1,702	1,300	9,306	7,266	16,572	59
1,213	1,046	1,245	1,350	1,245	1,196	1,146	1,570	1,838	2,606	1,867	1,492	9,937	7,877	17,814	
54	62	80	77	76	51	53	53	96	111	84	56	440	413	853	60
25	13	21	16	11	13	27	30	34	59	52	56	188	169	357	61
79	75	101	93	87	64	80	83	130	170	136	112	628	582	1,210	
1,227	1,205	1,404	1,296	1,619	1,375	1,125	1,461	1,525	1,817	1,799	1,396	9,652	7,597	17,249	62
1,306	1,280	1,505	1,389	1,706	1,439	1,205	1,544	1,655	1,987	1,935	1508	10,280	8,179	18,459	
308	215	249	252	297	304	329	450	416	456	410	386	2,186	1,886	4,072	63
44	31	2	38	41	25	53	67	86	90	81	52	302	328	630	64
14	20	1	14	23	17	34	30	25	40	31	33	141	153	294	65
366	266	284	304	361	346	416	547	527	586	522	47	2,629	2,367	4,996	
1,198	974	1,115	1,056	1,175	1,167	1,020	1,377	1,535	2,265	1,802	1,580	9,002	7,212	16,214	66
1,564	1,240	1,399	1,360	1,536	1,513	1,436	1,924	2,062	2,851	2,324	2,001	11,631	9,579	21,210	
102	76	93	67	63	56	50	115	93	114	91	82	508	499	1,007	67
1,412	1,124	1,621	1,866	1,815	1,356	1,119	1,406	1,385	1,947	1,774	1,444	10,027	8,242	18,269	68
1,514	1,200	1,719	1,933	1,878	1,412	1,169	1,521	1,478	2,061	1,865	1,526	10,535	8,741	19,276	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1.	2.	3.	4.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.		
			Male.	Female.	Total.
69	CAWNPORE, ...	Cawnpore T., ...	54,043	44,433	98,476
70		In the 26 Rural Circles, ...	565,075	491,888	1,056,963
		Total of District, ...	619,118	536,321	1,155,439
71	FATEHPUR, ...	Fatehpur T., ...	9,605	9,459	19,064
72		In the 22 Rural Circles, ...	335,928	308,823	644,751
		Total of District, ...	345,533	318,282	663,815
73	JAUNPUR, ...	Jaunpur T., ...	17,748	17,255	35,003
74		In the 18 Rural Circles, ...	527,952	462,914	990,866
		Total of District, ...	545,700	480,169	1,025,869
75	HAMIRPUR, ...	Rath T., ...	7,094	7,421	14,515
76		In the 29 Rural Circles, ...	269,102	245,520	514,622
		Total of District, ...	276,196	252,941	529,137
77	BANDA, ...	Banda T., ...	13,612	13,030	26,642
78		In the 28 Rural Circles, ...	346,153	324,816	670,969
		Total of District, ...	359,765	337,846	697,611
79	ALLAHABAD, ...	Allahabad T., ...	81,765	64,099	145,864
80		In the 33 Rural Circles, ...	633,345	615,036	1,248,381
		Total of District, ...	715,110	679,135	1,394,245
81	GORAKHPUR, ...	Gorakhpur T., ...	27,571	24,062	51,633
82		In the 35 Rural Circles, ...	1,050,501	917,216	1,967,717
		Total of District, ...	1,078,072	941,278	2,019,350
83	BASTI, ...	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994
84	AZAMGARH, ...	Azamgarh T., ...	8,216	7,064	15,280
85		Mau T., ...	5,794	5,521	11,315
		Total of Towns, ...	14,710	12,585	27,295
86		In the 27 Rural Circles, ...	811435	692,680	1,504,115
		Total of District, ...	826,145	705,265	1,531,410
87	GHAZIPUR, ...	Ghazipur T., ...	19,889	19,619	39,508
88		In the 27 Rural Circles, ...	676,683	629,210	1,305,893
		Total of District, ...	696,572	648,829	1,345,401

DIX B.

FORM No. II.

North-Western Provinces, during each month of the year 1874.—(continued.)

5.												6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year* 1874.			Number.
												Male.	Female.	Total.	
260	192	175	170	225	138	193	258	203	204	170	193	1,182	1,199	2,381	69
2,438	2,190	2,880	2,663	2,970	2,335	1,901	2,663	2,367	2,947	2,083	2,211	16,054	13,594	29,648	70
2,698	2,382	3,055	2,833	3,195	2,473	2,094	2,921	2,570	3,151	2,253	2,404	17,236	14,793	32,029	
31	22	31	26	34	26	32	40	25	26	31	32	187	171	358	71
1,221	934	1,099	1,156	1,400	1,200	897	1,064	937	1,018	902	910	6,987	5,751	12,738	72
1,252	956	1,130	1,182	1,434	1,226	929	1,104	962	1,046	933	942	7,174	5,922	13,096	
92	45	107	137	124	65	54	44	88	62	51	32	485	396	881	73
1,423	1,301	1,305	1,478	1,611	1,284	1,450	1,552	1,455	1,352	1,402	977	9,454	7,136	16,590	74
1,515	1,346	1,412	1,615	1,735	1,349	1,504	1,596	1,543	1,414	1,433	1,009	9,939	7,532	17,471	
21	16	21	17	25	15	21	39	56	69	35	37	218	154	372	75
1,030	832	699	543	690	755	872	1,179	1,021	1,222	1,120	1,018	6,360	4,621	10,981	76
1,051	848	720	560	715	770	893	1,218	1,077	1,291	1,155	1,055	6,578	4,775	11,353	
73	35	43	64	75	60	68	62	56	77	48	48	362	347	709	77
1,580	1,291	1,076	1,010	1,121	1,007	932	1,166	1,073	1,200	1,110	1,221	7,817	5,970	13,787	78
1,653	1,326	1,119	1,074	1,196	1,067	1,000	1,228	1,129	1,277	1,158	1,269	8,179	6,317	14,496	
141	119	141	150	159	109	130	179	161	114	110	136	902	747	1,649	79
2,052	1,623	2,360	2,327	2,693	1,756	1,631	1,633	1,564	1,570	1,253	1,462	11,987	9,937	21,924	80
2,193	1,742	2,501	2,477	2,852	1,865	1,761	1,812	1,725	1,684	1,363	1,598	12,889	10,684	23,573	
165	136	158	133	153	122	160	189	279	220	143	100	1,151	827	1,978	81
4,434	4,132	5,121	6,156	5,392	4,181	4,245	4,654	5,443	6,956	3,885	2,919	34,367	23,161	57,528	82
4,599	4,268	5,279	6,289	5,545	4,303	4,425	4,843	5,722	7,186	4,028	3,019	35,518	23,988	59,506	
1,660	1,500	1,715	1,800	1,488	1,192	1,365	1,737	1,627	2,095	1,887	1,409	11,334	8,141	19,475	83
25	21	39	42	40	32	48	43	65	29	23	30	228	209	437	84
13	17	54	54	40	30	73	39	18	39	28	24	217	212	429	85
38	38	93	96	80	62	121	82	83	68	51	54	445	421	866	
2,851	3,466	4,095	4,859	3,378	2,514	2,444	3,085	3,126	3,168	2,247	1,997	20,777	16,453	37,230	86
2,889	3,504	4,188	4,955	3,458	2,576	2,565	3,167	3,209	3,209	2,298	2,051	21,222	16,874	38,096	
51	44	59	63	67	66	100	85	176	103	107	76	539	458	997	87
2,326	1,691	2,370	3,053	2,872	1,939	2,088	2,877	2,467	2,505	1,649	1,696	15,251	12,277	27,528	88
2,372	1,734	2,429	3,116	2,939	2,005	2,188	2,962	2,643	2,608	1,756	1,772	15,790	12,735	28,525	

APPEN
ANNUAL

Deaths registered in the Rural Circles and Towns of the

1. Number.	2. District.	3. Rural Circles or Towns.	4. *Population according to Census of* 1872. Male.	Female.	Total.
89	BENARES, ...	Benares T., ...	96,814	90,527	187,341
90		Ramnagar T., ...	6,256	5,697	11,953
		Total of Towns, ...	103,070	96,224	199,294
91		In the 14 Rural Circles, ...	303,274	291,131	594,405
		Total of District, ...	406,344	387,355	793,699
92	MIRZAPUR, ...	Mirzapur T., ...	39,814	37,415	77,229
93		Chunar T., ...	5,976	6,313	12,289
		Total of Towns, ...	45,790	43,728	89,518
94		In the 23 Rural Circles,...	474,706	451,069	925,775
		Total of District, ...	520,496	494,797	1,015,293
95	JALAUN, ...	Kalpi T., ...	8,021	7,549	15,570
96		Kunch T., ...	7,309	7,139	14,448
97		Jalaun T., ...	5,309	4,888	10,197
		Total of Towns, ...	20,639	19,576	40,215
98		In the 21 Rural Circles, ...	195,968	168,201	364,169
		Total of District, ...	216,607	187,777	404,384
99	JHANSI, ...	Mau T., ...	8,205	8,223	16,428
100		In the 24 Rural Circles, ...	159,314	141,993	301,307
		Total of District, ...	167,519	150,216	317,735
101	LALITPUR, ...	Total of the District containing 20 Circles, ...	111,625	101,003	212,628
		Grand Total for the Province, ...	16,406,833	14,362,223	30,769,056
			ratio of deaths per 1,000 in each month, ...		

ABSTRACT

Summary of deaths in the North-

	Total number of	*Total population of* Male.	Female.	Total.
RURAL CIRCLES, ...	813	15,277,057	13,328,157	28,605,214
TOWNS, ...	66	1,129,776	1,034,066	2,163,842
For the Province, ...	879	16,406,833	14,362,223	30,769,056

NOTE.—The Towns of less than 10,000 population

APPENDIX B.

FORM No. II.

North-Western Provinces, during each month of the year 1874—(concluded.)

5.											6.			7.
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	*Total deaths registered during the year* 1874.			Number.
												Male.	Female.	Total.	
265	249	260	248	309	268	256	305	295	276	208	242	1,797	1,384	3,181	89
11	7	19	17	7	14	19	27	32	13	15	16	110	87	197	90
276	256	279	265	316	282	275	332	327	289	223	258	1,907	1,471	3,378	
783	666	658	774	698	741	949	1,028	1,025	886	755	560	5,453	4,070	9,523	91
1,059	922	937	1,039	1,014	1,023	1,224	1,360	1,352	1,175	978	818	7,360	5,541	12,901	
149	94	113	169	183	137	161	207	163	130	149	160	907	908	1,815	92
35	19	29	48	45	26	52	56	44	30	19	23	244	182	426	93
184	113	142	217	228	163	213	263	207	160	168	183	1,151	1,090	2,241	
1,430	1,272	1,237	1,709	1,659	1,519	1,785	1,659	1,969	1,783	1,496	1,383	10,472	8,629	19,101	94
1,614	1,385	1,379	1,926	1,887	1,682	1,998	2,122	2,176	1,943	1,664	1,566	11,623	9,719	21,342	
33	25	11	21	34	27	37	50	33	46	43	34	259	135	394	95
12	3	18	21	24	16	24	51	81	96	64	64	261	213	474	96
16	11	16	14	28	20	20	38	36	52	41	33	192	133	325	97
61	39	45	56	86	63	81	139	150	194	148	131	712	481	1,193	
654	548	669	629	626	538	587	832	745	1,108	934	731	5,038	3,573	8,601	98
715	587	714	685	712	601	668	971	895	1,302	1,082	862	5,740	4,054	9,794	
21	12	22	19	14	18	9	48	22	43	38	39	170	135	305	99
520	432	377	305	356	344	396	399	353	422	506	452	2,754	2,109	4863	100
541	444	399	325	370	362	405	447	375	46	544	491	2,924	2,244	5,168	
347	237	297	263	291	294	367	403	324	475	484	509	2,331	1,960	4,291	101
49,899	42,009	48,868	52,969	57,185	48,497	47,457	64,033	68,114	79,114	62,887	51,227	371,270	300,989	672,259	
1·62	1·36	1·59	1·72	1·86	1·57	1·54	2·08	2·21	2·57	2·04	1·66	22·62	20·95	21·84	

OF No. II.

Western Provinces, during the year 1874.

Total deaths of			*Ratio of deaths per* 1,000 *in the year* 1874.			*Mean ratio of deaths per* 1,000 *in previous five years.*		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
339,789	272,081	611,870	22·24	20·41	21·39	...	...	19·77
31,481	28,908	60,389	27·86	27·95	27·90	...	...	
371,270	300,989	672,259	22·62	20·95	21·84	...	...	19·77

have not been entered in the statement.

APPEN
ANNUAL

Deaths registered from different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
Number.	District.	Rural Circles or Towns.	*Population according to Census of* 1872.			*Cholera.*		
			Male.	Female.	Total.	Male.	Female.	Total.
1	GARHWAL. KUMAUN.	Total of District containing 8 Circles,	231,145	201,742	432,888	...	1	1
2		Total of District containing 12 Circles,	155,745	154,537	310,282	...	...	...
3	TARAI.	Kashipur T., ...	6,783	6,438	13,221	...	...	...
4		In the 9 Rural Circles, ...	95,790	76,636	172,426	...	...	...
		Total of District, ...	102,573	83,074	185,647	...	...	...
5	BIJNOR.	Nagina T., ...	9,981	9,715	19,696	3	4	7
6		Najibabad T., ...	10,091	9,565	19,656	2	...	2
7		Bijnor T., ...	7,071	5,995	13,066	1	...	2
8		Sherkot T., ...	6,353	6,233	12,586	1	1	1
9		Chandpur T., ...	6,170	5,863	12,033	2	4	6
		Total of Towns, ...	39,666	37,371	77,037	9	9	18
10		In the 27 Rural Circles, ...	355,729	304,386	660,115	20	17	37
		Total of District, ...	395,395	341,757	737,152	29	26	55
11	MORADABAD.	Moradabad T., ...	30,664	29,202	59,866	2	3	5
12		Sambhal T., ...	17,095	17,544	34,639	5	4	9
13		Amroha T., ...	16,827	17,952	34,779	2	3	5
14		Chandausi T., ...	12,561	10,979	23,540	4	1	5
		Total of Towns, ...	77,147	75,677	152,824	13	11	24
15		In the 22 Rural Circles, ...	519,629	449,678	969,307	23	17	40
		Total of District, ...	596,776	525,355	1,122,131	36	28	64
16	BAREILLY.	Bareilly T., ...	46,269	44,422	90,691	1	2	3
17		Pilibhit T., ...	15,138	14,702	29,840	...	2	2
18		Aonla T., ...	5,840	5,313	11,153	1	2	3
		Total of Towns, ...	67,247	64,437	131,684	2	6	8
19		In the 27 Rural Circles, ...	739,666	635,451	1,375,117	16	29	45
		Total of District, ...	806,913	699,888	1,506,801	18	35	53
20	SHAHJAHANPUR.	Shahjahanpur T., ...	40,231	39,246	79,487	...	...	...
21		In the 23 Rural Circles,... ...	470,895	399,089	869,984	4	15	19
		Total of District, ...	151,136	438,335	949,471	4	15	19
22	BUDAUN.	Budaun T., ...	15 533	15,694	31,227	8	4	12
23		Sahaswan T., ...	8,616	8,445	17,061	2	2	4
		Total of Towns, ...	24,149	24,139	48,288	10	6	16
24		In the 18 Rural Circles, ...	479,470	406,590	886,060	20	10	30
		Total of District, ...	503,619	430,729	934,348	30	16	46
25	DEHRA DUN.	Total of District containing 6 Circles,	68,044	47,667	115,711	...	1	1
26	SAHARANPUR.	Saharanpur T., ...	23,854	21,165	45,019	1	...	1
27		Deoband T., ...	10,131	9,252	19,383	...	...	...
28		Gangoh T., ...	5,728	5,254	10,982	...	...	...
29		Roorkee T., ...	6,550	4,228	10,778	1	...	1
		Total of Towns, ...	46,263	39,899	86,162	2	...	2
30		In the 22 Rural Circles, ...	438,245	359,375	797,620	7	8	15
		Total of District, ...	484,508	399,274	883,782	9	8	17

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874.

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
5	11	16	1,786	1,277	3,063	776	723	1,499	1
20	11	31	1,739	1,330	3,069	1,030	997	2,027	2
2	2	4	133	95	228	34	29	63	3
72	76	148	2,322	1,973	4,295	187	142	329	4
74	78	152	2,455	2,068	4,523	221	171	392	
4	8	12	74	87	161	25	24	49	5
4	4	8	140	89	229	34	26	60	
10	6	16	69	73	142	66	55	121	7
16	10	26	90	77	167	19	22	41	8
14	24	38	68	65	133	26	20	46	9
48	52	100	441	391	832	170	147	317	
977	892	1,869	4,374	3,763	8,137	1,066	845	1,911	10
1,025	944	1,969	4,815	4,154	8,969	1,236	992	2,228	
18	15	33	422	422	844	185	142	327	11
66	73	139	283	243	526	75	77	152	12
127	111	238	115	135	250	185	163	348	13
19	12	31	138	82	220	114	121	235	14
236	211	441	958	882	1,840	559	503	1,062	
1,468	1,415	2,883	6,139	5,134	11,273	1,859	1,481	3,340	15
1,698	1,626	3,324	7,097	6,016	13,113	2,418	1,984	4,402	
126	148	274	638	696	1,334	396	397	793	16
4	4	8	193	151	344	52	35	87	17
70	39	109	530	397	927	50	35	85	18
200	191	391	1,361	1,244	2,605	498	467	965	
765	640	1,405	9,903	8,272	18,175	872	665	1,537	19
965	831	1,796	11,264	9,516	20,780	1,370	1,132	2,502	
59	70	129	404	447	851	195	171	366	20
1,252	1,218	2,470	6,597	5,781	12,378	1,690	1,469	3,159	21
1,311	1,288	2,599	7,001	6,228	13,229	1,885	1,640	3,525	
8	11	19	158	179	337	230	177	407	22
6	8	14	91	85	176	38	26	64	23
14	19	33	249	264	513	268	203	471	
789	707	1,496	6,836	5,521	12,357	1,352	1,113	2,465	24
803	726	1,529	7,085	5,785	12,870	1,620	1,316	2,936	
1	...	1	712	424	1,136	275	204	479	25
29	13	42	186	213	399	350	282	632	26
11	11	22	105	99	204	116	106	222	27
4	10	14	84	86	170	29	31	60	38
...	...	...	71	56	127	3	...	3	29
44	34	78	446	454	900	498	419	917	
911	798	1,709	4,935	4,305	9,210	1,101	972	2,073	30
955	832	1,787	5,351	4,759	10,110	1,599	1,391	2,990	

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female	Total.	Male.	Female.	Total.	Total.
1	Kumaun	Total of District containing 8 Circles,...	12	14	26	33	24	57	60	53	113	18	25	43	239
2	Garhwal.	Total of District containing 12 Circles,...	15	32	47	30	35	65	78	113	191	35	25	60	363
3	Tehri.	Kashipur T., ...	...	...	...	...	...	...	2	...	2	2	2	4	6
4		In the 9 Rural Circles,	1	1	2	8	3	11	19	14	33	10	5	15	61
		Total of District, ...	1	1	2	8	3	11	21	14	35	12	7	19	67
5	Bijnor.	Nagina, ...	...	...	...	...	1	1	...	1	1	2	2	4	6
6		Najibabad T., ...	...	...	...	...	...	...	1	1	2	1	2	3	5
7		Bijnor T., ...	...	1	1	...	...	...	...	...	...	...	1	1	2
8		Sherkot T., ...	1	1	2	...	1	1	...	...	...	1	...	1	4
9		Chandpur T., ...	...	...	...	...	...	...	...	1	1	...	2	2	3
		Total of Towns, ...	1	2	3	...	2	2	1	3	4	4	7	11	20
10		In the 27 Rural Circles,	3	6	9	8	19	27	92	59	151	62	74	136	323
		Total of District, ...	4	8	12	8	21	29	93	62	155	66	81	147	343
11	Moradabad.	Moradabad T., ...	8	2	10	15	11	26	2	3	5	1	3	4	45
12		Sambhal T., ...	...	...	...	2	2	4	6	5	11	1	1	2	17
13		Amroha T., ...	1	...	1	1	4	5	6	2	8	1	...	1	15
14		Chandausi T., ...	4	3	7	1	2	3	4	5	9	3	...	3	22
		Total of Towns, ...	13	5	18	19	19	38	18	15	33	6	4	10	99
15		In the 22 Rural Circles,	18	16	34	33	24	57	107	69	176	48	82	130	397
		Total of District, ...	31	21	52	52	43	95	125	84	209	54	86	140	496
16	Bareilly.	Bareilly T., ...	...	1	1	...	1	1	10	12	22	2	2	4	28
17		Pilibhit T., ...	...	...	...	...	...	...	3	3	6	2	3	5	11
18		Aonla T., ...	...	1	1	...	2	2	4	4	8	2	3	5	16
		Total of Towns, ...	...	2	2	...	3	3	17	19	36	6	8	14	55
19		In the 27 Rural Circles,	13	18	31	39	9	48	135	107	242	82	97	179	500
		Total of District, ...	13	20	33	39	12	51	152	126	278	88	105	193	555
20	Shahjahanpur.	Shahjahanpur T., ...	1	...	1	5	...	5	18	15	33	3	4	7	46
21		In the 23 Rural Circles,	24	121	145	22	12	34	223	147	370	65	71	136	685
		Total of District, ...	25	121	146	27	12	39	241	162	403	68	75	143	731
22	Budaun.	Budaun T., ...	...	...	...	6	6	12	5	2	7	...	1	1	20
23		Sahaswan T., ...	...	...	...	...	...	...	3	4	7	2	...	2	9
		Total of Towns, ...	...	...	...	6	6	12	8	6	14	2	1	3	29
24		In the 18 Rural Circles,	19	58	77	17	10	27	151	133	284	75	106	181	569
		Total of District, ...	19	58	77	23	16	39	159	139	298	77	107	184	598
25	Dehra Dun.	Total of District containing 6 Circles,	2	...	2	3	1	4	17	2	19	5	4	9	34
26	Saharanpur.	Saharanpur T., ...	8		11	3	2	5	8	5	13	...	...	...	29
27		Deoband T., ...	...	...	...	1	2	3	4	...	4	...	...	...	7
28		Gangoh T., ...	...	...	...	...	...	...	1	...	1	...	1	1	2
29		Roorkee T., ...	...	...	...	1	...	1	...	...	...	1	...	1	2
		Total of Towns, ...	8	3	11	5	4	9	13	5	18	1	1	2	40
30		In the 22 Rural Circles,	5	10	15	26	11	37	61	41	102	24	15	39	193
		Total of District,...	13	13	26	31	15	46	74	46	120	25	16	41	233

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874—(continued.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.					*From all Causes.*			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
1,140	874	2,014	3,830	3,002	6,832	...	·04	7·07	3·46	·55	16·57	14·88	15·78	1
335	245	580	3,282	2,788	6,070	...	·10	9·89	6·53	1·17	21·07	18·04	19·56	2
9	8	17	182	136	318	...	·30	17·24	4·76	·45	26·53	21·12	24·05	3
90	47	137	2,709	2,261	4,970	...	·85	24·90	1·90	·35	28·90	29·50	28·82	4
99	55	154	2,891	2,397	5,288	...	·81	24·36	2·11	·36	28·18	28·85	28·48	
28	14	42	136	141	277	·35	·60	8·17	2·49	·30	13·62	14·51	14·06	5
36	42	78	218	164	382	·10	·40	11·65	3·05	3·96	21·60	17·14	19·43	6
22	26	48	168	162	330	·07	1·22	10·86	5·26	·15	23·75	27·02	25·25	7
24	9	33	152	121	273	·16	2·06	13·27	3·26	·32	23·92	19·41	21·69	8
32	21	53	142	137	279	·50	3·15	11·05	3·82	·25	23·01	23·36	23·18	9
142	112	254	816	725	1,541	·23	1·30	10·80	4·11	·26	20·57	19·40	20·00	
624	540	1,164	7,226	6,215	13,441	·05	2·83	12·32	2·89	·48	20·31	20·41	23·61	10
766	652	1,418	8,042	6,940	14,982	·07	2·67	12·16	3·02	·46	20·24	20·30	20·32	
221	171	392	874	772	1,646	·08	·55	14·09	5·46	·75	7·20	26·43	27·49	11
140	121	261	578	526	1,104	·26	4·01	15·18	4·39	·50	33·81	29·98	31·87	12
107	69	176	545	487	1,032	·14	6·84	7·19	10·00	·43	32·39	27·13	29·67	13
80	57	137	367	283	650	·21	1·31	9·34	9·98	·93	29·21	25·77	27·61	14
548	418	966	2,364	2,068	4,432	·15	2·88	12·04	6·95	·64	30·64	27·31	29·00	
583	698	1,581	10,578	8,936	19,514	·04	2·97	11·63	3·44	·41	20·35	19·87	20·13	15
1,431	1,116	2,547	12,942	11,004	23,946	·05	2·96	11·68	3·92	·44	21·69	20·94	21·34	
75	71	146	1,248	1,330	2,578	·03	3·02	14·71	8·74	·03	26·97	29·94	28·42	16
66	41	107	320	239	559	·06	·26	11·52	2·91	·36	21·13	16·12	18·73	17
6	6	12	663	489	1,152	·27	9·77	88·11	7·62	1·43	113·52	92·03	103·29	18
147	118	265	2,231	2,058	4,289	·06	2·96	19·78	7·32	·41	33·17	31·81	32·57	
469	306	775	12,294	10,143	22,437	·03	1·02	13·21	1·11	·36	16·62	15·98	16·31	19
616	424	1,040	14,525	12,201	26,726	·03	1·19	13·79	1·66	·36	18·00	17·43	17·73	
273	177	450	958	884	1,842	...	1·62	10·70	4·60	·51	23·80	22·52	23·17	20
1,969	1,486	3,455	11,846	10,320	22,166	·02	2·83	14·23	3·63	·79	25·15	25·86	25·48	21
2,242	1,663	3,905	12,804	11,204	24,008	·02	2·73	13·92	3·71	·77	25·05	25·56	25·28	
88	75	163	503	455	958	·38	·30	10·79	13·03	·64	32·38	28·99	30·67	22
145	129	274	287	254	541	·23	·82	10·32	3·75	·53	33·31	30·07	31·71	23
233	204	437	790	709	1,499	·33	·68	10·62	9·75	·60	32·71	29·37	31·04	
1,251	913	2,164	10,519	8,571	19,081	·03	1·68	13·94	2·78	·64	2·19	21·08	21·53	24
1,484	1,117	2,601	11,300	9,280	20,580	·05	1·63	13·77	3·14	·64	22·43	21·54	22·02	
130	81	211	1,145	717	1,862	...	...	9·81	4·14	·29	16·82	15·04	16·09	22
70	39	109	655	557	1,212	·02	·93	8·86	14·04	·64	27·46	26·31	26·92	26
8	5	13	245	223	468	...	1·13	10·52	11·45	·36	24·00	24·10	24·14	27
54	49	103	172	177	349	...	1·27	15·48	5·46	·18	30·02	35·51	31·78	28
14	6	20	91	62	153	·09	...	11·78	·27	·18	13·80	14·66	14·19	29
146	99	245	1,163	1,019	2,182	·02	·90	10·44	10·61	·46	25·13	25·54	25·32	
725	497	1,222	7,755	6,657	14,422	·02	2·14	11·54	2·59	·24	17·72	18·52	18·08	30
871	596	1,467	8,928	7,676	16,604	·02	2·02	11·44	3·38	·26	18·43	19·22	18·78	

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
			Population according to Census of 1872.			*Cholera.*		
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.
31	Muzaffarnagar.	Kairana T., ...	9,117	8,625	17,742	...	...	...
32		Kandhla T., ...	5,799	5,227	11,026	...	...	...
33		Muzaffarnagar T., ...	6,105	4,688	10,793	2	...	2
		Total of Towns, ...	21,021	18,540	39,561	2	...	2
34		In the 25 Rural Circles, ...	354,587	295,934	650,521	...	...	...
		Total of District, ...	375,608	314,474	690,082	2	...	2
35	Meerut.	Meerut T., ...	27,383	24,608	51,991	...	...	...
36		Hapur T., ...	7,601	6,943	14,544	...	...	...
37		Sardhana T., ...	6,508	5,961	12,469	1	...	1
		Total of Towns, ...	41,492	37,512	79,004	1	...	1
38		In the 40 Rural Circles, ...	643,912	556,998	1,194,910	4	...	4
		Total of District, ...	685,404	588,510	1,273,914	5	...	5
39	Bulandshahr.	Khurja T., ...	13,770	13,088	26,858	...	...	...
40		Sikandarbad T., ...	9,514	8,835	18,349	2	5	7
41		Bulandshahr T., ...	7,730	7,082	14,812	1	...	1
42		Shikarpur T., ...	5,798	5,540	11,338	...	...	...
		Total of Towns, ...	36,812	34,545	71,357	3	5	8
43		In the 29 Rural Circles, ...	456,870	408,366	865,236	10	9	19
		Total of District, ...	493,682	442,911	936,593	13	14	27
44	Aligarh.	Aligarh or Koil T., ...	29,697	26,149	55,846	9	6	15
45		Hathras T., ...	16,528	14,372	30,900	5	2	7
46		Atrauli T., ...	8,095	7,527	15,622	2	...	2
47		Sikandra Rao T., ...	5,668	5,146	10,814	...	...	...
		Total of Towns, ...	59,988	53,194	113,182	16	8	24
48		In the 28 Rural Circles, ...	517,275	442,651	959,926	19	19	38
		Total of District, ...	577,263	495,845	1,073,108	35	27	62
49	Etah.	Kasganj T., ...	8,393	7,371	15,764	...	...	...
50		Soron T., ...	7,093	6,565	13,658	...	...	...
		Total of Towns, ...	15,486	13,936	29,422	...	...	...
51		In the 18 Rural Circles, ...	367,260	306,803	674,063	4	2	6
		Total of District, ...	382,746	320,739	703,485	4	2	6
52	Muttra.	Muttra T., ...	32,963	30,468	63,431	13	10	23
53		Brindaban T., ...	10,965	10,039	21,004	1	1	2
54		Kosi T., ...	6,568	6,202	12,770	...	1	1
		Total of Towns, ...	50,496	46,709	97,205	14	12	26
55		In the 27 Rural Circles, ...	430,119	360,031	790,150	14	7	21
		Total of District, ...	480,615	406,740	887,355	28	19	47
56	Farukhabad.	Farukhabad T., ...	38,249	37,702	75,951	...	4	4
57		Kanauj T., ...	8,772	8,321	17,093	...	...	...
58		Kaimganj T., ...	5,287	5,036	10,323	...	...	...
		Total of Towns, ...	52,308	51,059	103,367	...	4	4
59		In the 26 Rural Circles, ...	447,414	367,967	815,381	22	28	50
		Total of District, ...	499,722	419,026	918,748	22	32	54

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
2	2	4	226	223	449	19	18	37	31
25	24	49	131	142	273	19	13	32	32
3	1	4	78	89	167	22	24	46	33
30	27	57	435	454	889	60	55	115	
428	392	820	6,512	5,554	12,066	596	335	931	34
458	419	877	6,947	6,008	12,955	656	390	1,046	
27	29	56	1,114	1,129	2,243	126	118	244	35
1	...	1	237	245	482	60	55	115	36
...	...	...	159	153	312	8	3	11	37
28	29	57	1,510	1,527	3,037	194	176	370	
523	443	966	13,785	12,088	25,873	957	666	1,623	38
551	472	1,023	15,295	13,615	28,910	1,151	842	1,993	
2	4	6	1,169	1,359	2,528	69	91	160	39
19	15	34	266	339	605	250	248	498	40
3	2	5	575	657	1,232	7	10	17	41
...	1	1	83	80	163	9	10	19	42
24	22	46	2,093	2,435	4,528	335	359	694	
523	494	1,017	13,414	12,497	25,911	713	470	1,183	43
547	516	1,063	15,507	14,932	30,439	1,048	829	1,877	
13	18	31	404	417	821	289	292	581	44
35	18	53	313	308	621	283	272	555	45
2	3	5	211	193	404	30	26	56	46
3	6	9	112	99	211	6	4	10	47
53	45	98	1,040	1,017	2,057	608	594	1,202	
582	591	1,173	8,058	6,782	14,840	1,142	912	2,054	48
635	636	1,271	9,098	7,799	16,897	1,750	1,506	3,256	
...	1	1	276	267	543	15	14	29	49
2	2	4	170	171	341	11	15	26	50
2	3	5	446	438	884	26	29	55	
746	597	1,343	6,414	5,408	11,822	186	125	311	51
748	600	1,348	6,860	5,846	12,706	212	154	366	
20	24	44	386	378	764	299	274	573	52
4	3	7	223	219	442	139	151	290	53
2	...	2	61	61	122	39	38	77	54
26	27	53	670	658	1,328	477	463	940	
307	251	558	4,588	3,764	8,352	882	578	1,460	55
333	278	611	5,258	4,422	9,680	1,359	1,041	2,400	
4	4	8	291	330	621	56	50	106	56
...	...	...	57	51	108	...	1	1	57
4	1	5	46	38	84	4	1	5	58
8	5	13	394	419	813	60	52	112	
1,891	1,401	3,292	5,889	4,611	10,500	731	593	1,324	59
1,899	1,406	3,305	6,283	5,030	11,313	851	585	1,436	

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
31	Muzaffar-nagar.	Kairana T., ...	...	...	...	...	...	...	2	1	3	1	1	2	5
32		Kandhla T., ...	1	...	1	...	...	...	1	1	2	...	...	...	3
33		Muzaffarnagar T., ...	...	...	...	...	...	...	5	...	5	...	...	...	5
		Total of Towns, ...	1	...	1	...	...	...	8	2	10	1	1	2	13
34		In the 25 Rural Circles,	2	5	7	14	7	21	59	55	114	7	5	12	154
		Total of District, ...	3	5	8	14	7	21	67	57	124	8	6	14	167
35	Meerut.	Meerut T., ...	1	...	1	...	...	...	3	1	4	1	...	1	6
36		Hapur T., ...	3	...	3	...	...	...	4	1	5	...	...	...	8
37		Sardhana T., ...	...	...	...	2	1	3	1	...	1	...	...	...	4
		Total of Towns, ...	4	...	4	2	1	3	8	2	10	1	...	1	18
38		In the 40 Rural Circles,	5	9	14	5	3	8	91	66	157	14	11	25	204
		Total of District, ...	9	9	18	7	4	11	99	68	167	15	11	26	222
39	Bulandshahr.	Khurja T., ...	1	1	2	...	...	...	1	3	4	...	...	...	6
40		Sikandarabad T., ...	...	...	...	...	1	1	...	...	...	1	...	1	2
41		Bulandshahr T., ...	1	...	1	...	...	...	...	...	...	1	...	1	2
42		Shikarpur T., ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of Towns, ...	2	1	3	...	1	1	1	3	4	2	...	2	10
43		In the 29 Rural Circles,	2	5	7	16	6	22	74	73	147	18	11	29	205
		Total of District, ...	4	6	10	16	7	23	75	76	151	20	11	31	215
44	Aligarh.	Aligarh or Koil T., ...	1	1	2	2	5	7	7	3	10	2	...	2	21
45		Hathras T., ...	...	1	1	5	...	5	1	1	2	...	...	...	8
46		Atrauli T., ...	...	2	2	...	1	1	3	2	5	2	1	3	11
47		Sikandra Rao T., ...	...	2	2	...	...	...	2	2	4	...	...	...	6
		Total of Towns, ...	1	6	7	7	6	13	13	8	21	4	1	5	46
48		In the 28 Rural Circles,	20	22	43	30	9	39	93	84	177	25	13	38	297
		Total of District, ...	21	29	50	37	15	52	106	92	198	29	14	43	343
49	Etah.	Kasganj T., ...	...	...	...	...	...	...	2	2	4	...	...	...	4
50		Soron T., ...	...	1	1	...	1	1	...	...	1	...	...	...	3
		Total of Towns, ...	...	1	1	...	1	1	3	2	5	...	...	...	7
51		In the 18 Rural Circles,	4	15	19	19	7	26	5	39	90	11	21	32	167
		Total of District, ...	4	16	20	19	8	27	5	41	95	11	21	32	174
52	Muttra.	Muttra T., ...	...	...	...	...	1	1	...	5	6	...	2	2	9
53		Brindaban T., ...	...	1	1	...	...	...	...	3	6	...	...	...	7
54		Kosi T., ...	...	...	...	...	...	...	...	1	1	1	1	2	3
		Total of Towns, ...	...	1	1	...	1	1	...	8	13	1	3	4	19
55		In the 27 Rural Circles,	8	16	24	14	7	21	...	89	153	14	9	23	226
		Total of District, ...	8	17	25	14	8	22	74	97	171	15	12	27	245
56	Farukhabad.	Farukhabad T., ...	1	6	7	1	4	5	8	9	17	1	...	1	30
57		Kanauj T., ...	...	...	...	...	...	...	...	...	...	...	...	...	...
58		Kaimganj T., ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of Towns, ...	1	6	7	1	4	5	8	9	17	1	...	1	30
59		In the 26 Rural Circles,	24	78	102	31	18	49	136	107	243	41	36	77	471
		Total of District, ...	25	84	109	32	22	54	144	116	260	42	36	78	501

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874—(continued.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.								
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
50	33	83	300	278	578	...	·22	25·30	2·08	·28	32·90	32·23	32·57	31
5	1	6	182	181	363	...	4·44	24·75	2·90	·27	31·38	34·67	32·92	32
42	20	62	152	134	286	·18	·37	15 47	4·26	·46	24·89	28·58	26·49	33
97	54	151	634	593	1,227	·05	1·44	22·47	2·90	·33	30·16	31·98	31·01	
295	211	506	7,913	6,564	14,477	...	1·25	18·54	1·43	·23	22·31	22·18	22·25	34
392	265	657	8,547	7,157	15,704	...	1·27	18·77	1·51	·24	22·75	22·75	22·75	
...	...	...	1,272	1,277	2,549	...	1·07	43·14	4·69	·11	46·45	51·89	49·03	35
96	105	201	491	406	897	...	·06	33·14	7·90	·55	52·75	58·47	55·48	36
21	21	42	192	178	370	·08	...	25·02	·88	·32	29·50	29·86	29·67	37
117	126	243	1,865	1,861	3,726	·01	·12	38·44	4·68	·22	45·15	49·61	47·16	
1,056	725	1,781	16,440	14,011	30,451	...	·81	21·65	1·35	·17	25·53	25·43	25·48	38
1,173	851	2,024	16,305	15,872	34,177	...	·80	22·69	1·56	·17	26·70	26·97	26·82	
82	92	174	1,324	1,550	2,874	...	·22	94·12	5·95	·22	96·76	110·78	107·00	39
...	...	...	538	608	1,146	·38	1·85	32·97	27·14	·10	56·54	68·81	62·45	40
...	1	1	588	670	1,258	·06	·33	83·17	1·14	·13	76·06	94·6	84·93	41
1	...	1	93	91	184	...	·08	14·37	1·67	·08	16 04	16·42	16·22	42
83	93	176	2,543	2,919	5,462	·11	·64	63·45	9 72	·14	69·08	73·61	76·53	
458	328	786	15,228	13,893	29,121	·02	1·17	29 94	1 36	·23	33·33	34·02	33·65	43
541	421	962	17,771	16,812	34,583	·02	1·15	32·50	2·00	·22	35·99	37·95	36 92	
136	140	276	863	882	1,745	·26	·55	14·70	10·40	·37	29·06	33·72	31·24	44
66	66	132	728	668	1,396	·22	1·71	20 09	17·96	·25	44·04	46·48	45·17	45
30	39	69	280	267	547	·12	·32	25·86	3·58	·70	34 58	35·47	35·01	46
10	9	19	133	122	255	...	·85	19·51	·92	·55	23·46	23·70	23·58	47
262	254	516	2,004	1,939	3,943	·21	·86	18·17	10·62	·40	33·40	36·45	34·83	
523	332	855	10,492	8,765	19,257	·04	1·22	15·46	2 14	·30	20·28	19·80	20·06	48
785	586	1,371	12,496	10,704	23,200	·05	1·18	15·74	3·03	·32	21·64	21·58	21·62	
28	27	55	321	311	632	...	·06	34·44	1·84	·25	38·24	42·19	40·09	49
10	4	14	194	194	388	...	·29	24 96	1·90	·22	27·35	29·55	28·40	50
38	31	96	515	505	1,020	...	·17	30·04	1·87	·23	33·25	36·23	34·66	
534	390	924	7,969	6,604	14,573	...	1·99	17·53	·46	·24	21·69	21·52	21·62	51
572	421	993	8,484	7,109	15,593	...	1 91	18·06	·52	·24	22·17	22·16	22·16	
327	251	578	1,046	945	1,991	·36	·69	12·04	9·03	·14	31·73	31·01	31·38	52
48	63	111	418	441	859	·09	·33	21·04	13 80	·33	38·12	43·92	40·89	53
41	49	90	145	150	295	·07	·15	9·55	6·03	·23	22·07	24·18	23·10	54
416	363	779	1,609	1,536	3,145	·26	·54	13·66	9·67	·11	31 86	32·88	32·35	
253	214	467	6,149	4,935	11,084	·02	·70	10·57	1 84	·28	14·29	13·70	14·02	55
669	577	1,246	7,758	6,471	14,229	·05	·69	10·90	2 70	·27	16·14	15·91	16·03	
148	105	253	510	512	1,022	·05	·10	8·17	1·39	·39	13·33	13·58	13·45	56
10	6	16	67	58	125	...	...	6·31	·05	...	7·63	6·96	7·31	57
...	1	1	54	41	95	...	·48	8·13	·48	...	10·21	8·13	9·20	58
158	112	270	631	611	1,242	·03	·12	7·36	1·08	·29	12·05	11·96	12·01	
481	454	935	9,306	7,266	16,572	·06	4·03	12·87	1 62	·57	20·79	19·74	20·32	59
639	566	1,205	9,937	7,877	17,814	·05	3·59	12·31	1·56	·54	19·88	18·79	19·39	

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
			Population according to Census of 1872.			*Cholera.*		
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.
60	Mainpuri.	Mainpuri T., ...	9,723	8,878	18,601	2	1	3
61		Shikohabad T., ...	5,367	4,702	10,069	...	...	...
		Total of Towns, ...	15,090	13,580	28,670	2	1	3
62		In the 17 Rural Circles, ...	411,865	325,248	737,113	2	1	3
		Total of District, ...	426,955	338,828	765,783	4	2	6
63	Agra.	Agra T., ...	80,804	69,873	150,677	22	1	23
64		Jalesar T., ...	7,640	7,262	14,902	...	...	...
65		Firozabad T.,...	7,058	6,730	13,788	...	...	...
		Total of Towns, ...	95,502	83,865	179,367	22	1	23
66		In the 35 Rural Circles,... ...	494,060	420,757	914,817	21	7	28
		Total of District, ...	589,562	504,622	1,094,184	43	8	51
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	3	1	4
68		In the 20 Rural Circles,... ...	353,584	284,448	638,032	4	11	15
		Total of District, ...	369,928	298,653	668,581	7	12	19
69	Cawnpore.	Cawnpore T.,...	54,043	44,433	98,476	1	...	1
70		In the 26 Rural Circles,... ...	565,075	491,888	1,056,963	4	18	22
		Total of District, ...	619,118	536,321	1,155,439	5	18	23
71	Fatehpur.	Fatehpur T.,...	9,605	9,459	19,064	...	...	...
72		In the 22 Rural Circles,... ...	335,928	308,823	644,751	...	4	4
		Total of District, ...	345,533	318,282	663,815	...	4	4
73	Jaunpur.	Jaunpur T., ...	17,748	17,255	35,003	...	...	...
74		In the 16 Rural Circles,... ...	527,952	462,914	990,866	5	10	15
		Total of District, ...	545,700	480,169	1,025,869	5	10	15
75	Hamirpur.	Rath T., ...	7,094	7,421	14,515	...	...	...
76		In the 29 Rural Circles,... ...	269,102	245,520	514,622	...	1	1
		Total of District, ...	276,196	252,941	529,137	...	1	1
77	Banda.	Banda T., ...	13,612	13,030	26,642	1	...	1
78		In the 28 Rural Circles,... ...	346,153	324,816	670,969	4	2	6
		Total of District, ...	359,765	337,846	697,611	5	2	7
79	Allaha-bad.	Allahabad T., ...	81,765	64,099	145,864	..	...	...
80		In the 33 Rural Circles, ...	633,345	615,036	1,248,381	7	8	15
		Total of District, ...	715,110	679,135	1,394,245	7	8	15
81	Gorakh-pur.	Gorakhpur T., ...	27,571	24,062	51,633	79	70	149
82		In the 35 Rural Circles, ...	1,050,501	917,216	1,967,717	2,154	1,685	3,839
		Total of District, ...	1,078,072	941,278	2,019,350	2,233	1,755	3,988
83	Basti.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994	543	421	964

DIX C.

FORM No. III.

Towns of the North-Western Provinces, during the year 1874—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
56	64	120	370	344	714	...	2	2	60
1	1	2	186	167	353	...	...	...	61
57	65	122	556	511	1,067	...	2	2	
1,746	1,325	3,072	7,397	5,762	13,159	188	155	338	62
1,803	1,391	3,194	7,953	6,273	14,226	188	157	340	
22	29	51	1,129	1,136	2,264	401	302	703	63
2	2	4	190	223	413	36	34	70	64
2	...	2	138	150	288	...	...	...	65
26	31	57	1,456	1,509	2,965	437	336	773	
716	539	1,255	6,708	5,607	12,315	959	624	1,583	66
742	570	1,312	8,164	7,116	15,280	1,396	960	2,356	
54	63	117	268	297	565	60	44	104	67
2,605	2,119	4,724	6,625	5,494	12,119	485	319	804	68
2,659	2,182	4,841	6,893	5,791	12,684	545	363	908	
20	18	38	787	847	1,634	103	76	179	69
4,047	3,343	7,390	9,969	8,552	18,521	852	637	1,489	70
4,067	3,361	7,428	10,756	9,399	20,155	955	713	1,668	
1	4	5	113	122	235	30	17	47	71
1,641	1,421	3,062	3,398	2,828	6,226	1,062	779	1,841	72
1,642	1,425	3,067	3,511	2,950	6,461	1,092	796	1,888	
102	80	182	282	259	541	35	20	55	73
1,625	1,448	3,073	6,984	5,040	12,024	233	114	347	74
1,727	1,528	3,255	7,266	5,299	12,565	268	134	402	
3	...	3	115	93	208	40	18	58	75
696	500	1,196	3,582	2,697	6,279	1,386	858	2,244	76
699	500	1,199	3,697	2,790	6,487	1,426	876	2,302	
33	29	62	174	170	344	53	52	105	77
1,485	1,293	2,778	4,635	3,373	8,008	989	642	1,631	78
1,518	1,322	2,840	4,809	3,543	8,352	1,042	694	1,736	
44	40	84	547	499	1,046	70	37	107	79
3,511	3,008	6,519	6,283	5,150	11,433	1,296	1,032	2,328	80
3,555	3,048	6,603	6,830	5,649	12,479	1,366	1,069	2,435	
10	10	20	997	709	1,706	24	12	36	81
7,899	5,876	13,775	19,874	12,728	32,602	1,642	902	2,544	82
7,909	5,886	13,795	20,871	13,437	34,308	1,666	914	2,580	
1,161	971	2,132	8,037	5,700	13,737	421	158	579	83

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake bite or killed by Wild beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
60	Mainpuri.	Mainpuri T., ...	3	1	4	...	...	...	5	...	5	...	...	...	9
61		Shikohabad T., ...	...	...	...	...	...	...	1	1	2	...	...	...	2
		Total of Towns, ...	3	1	4	...	...	...	6	1	7	...	...	...	11
62		In the 17 Rural Circles,	7	40	47	15	6	21	120	83	203	16	26	42	313
		Total of District, ...	10	41	51	15	6	21	126	84	210	16	26	42	324
63	Agra.	Agra T.,... ...	4	1	5	54	31	85	42	19	61	4	2	6	157
64		Jalesar T., ...	...	...	...	...	...	...	1	4	5	...	...	...	5
65		Firozabad T., ...	...	...	...		...	...	1	2	3	...	...	...	3
		Total of Towns, ...	4	1	5	54	31	85	44	25	69	4	2	6	165
66		In the 35 Rural Circles,	11	26	37	41	11	52	157	115	272	31	20	51	412
		Total of District, ...	15	27	42	95	42	137	201	140	341	35	22	57	577
67	Etawah.	Etawah, ...	1	1	2	...	...	...	10	3	13	...	3	3	18
68		In the 20 Rural Circles,	10	17	27	6	6	12	56	55	111	37	49	86	236
		Total of District, ...	11	18	29	6	6	12	66	58	124	37	52	89	254
69	Cawnpore.	Cawnpore T., ...	1	1	2	2	3	5	13	8	21	...	1	1	29
70		In the 25 Rural Circles,	7	35	42	18	17	35	151	137	288	53	67	120	485
		Total of District, ...	8	36	44	20	20	40	164	145	309	53	68	121	514
71	Fatehpur.	Fatehpur T., ...	1	...	1	...	...	...	4	2	6	...	...	...	7
72		In the 22 Rural Circles,	9	25	34	22	13	35	135	127	262	63	51	114	445
		Total of District, ...	10	25	35	22	13	35	139	129	268	63	51	114	452
73	Jaunpur.	Jaunpur T., ...	...	...	...	3	...	3	9	2	11	...	1	1	15
74		In the 18 Rural Circles,	8	34	42	16	10	26	217	203	420	48	55	103	591
		Total of District, ...	8	34	42	19	10	29	226	205	431	48	56	104	606
75	Hamirpur.	Rath T., ...	2	2	4	...	...	...	3	4	7	1	3	4	15
76		In the 29 Rural Circles,	8	44	52	11	5	16	83	56	139	25	52	77	284
		Total of District, ...	10	46	56	11	5	16	86	60	146	26	55	81	299
77	Banda.	Banda T., ...	...	1	1	4	6	10	...	1	1	2	4	6	18
78		In the 28 Rural Circles,	13	36	49	37	9	46	147	137	284	162	239	401	780
		Total of District, ...	13	37	50	41	15	56	147	138	285	164	243	407	798
79	Allaha-bad.	Allahabad T., ...	3	4	7	5	4	9	12	8	20	...	3	3	39
80		In the 33 Rural Circles	16	36	52	28	8	31	229	209	438	120	174	294	815
		Total of District, ...	19	40	59	28	12	40	241	217	458	120	177	297	854
81	Gorakh-pur.	Gorakhpur T., ...	...	1	1	...	...	...	5	1	6	2	7	9	16
82		In the 35 Rural Circles,	12	19	31	48	23	71	415	374	789	207	224	431	1,322
		otal of District, ...	12	20	32	48	23	71	420	375	795	209	231	440	1,338
83	Basti.	Total of District containing 27 Circles.	6	25	31	19	9	28	329	338	667	78	80	158	884

APPENDIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874.—(continued.)

10.			11.			12.								13.
						Ratio of deaths per 1,000 of Population.								
All other Causes.			*Total Deaths from all Causes.*								*From all Causes.*			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
4	1	5	440	413	853	·16	6·45	38·38	·10	·48	45·25	46·54	45·85	60
...	...	...	188	169	357	...	·19	35·05	...	·19	35·02	35·94	35·45	61
4	1	5	628	582	1,210	·10	4·25	37·21	·06	·38	41·61	42·85	42·20	
166	198	364	9,652	7,597	17,249	...	4·16	17·85	·45	·42	23·43	23·35	23·40	62
170	199	369	10,280	8,179	18,459	...	4·17	18·57	·44	·42	24·07	24·14	24·10	
509	365	874	2,186	1,886	4,072	·15	·33	15·02	4·66	1·04	27·05	27·00	27·02	63
73	65	138	302	328	630	...	·27	27·71	4·69	·33	39·53	45·19	42·27	64
...	1	1	141	153	294	...	·14	20·88	...	·21	19·97	22·73	21·32	65
582	431	1,013	2,629	2,367	4,996	·12	·31	16·53	4·30	·92	27·52	28·22	27·85	
358	263	621	9,002	7,212	16,214	·03	1·37	13·46	1·73	·45	18·22	17·11	17·72	66
940	694	1,634	11,631	9,579	21,210	·04	1·20	13·96	2·15	·53	19·72	18·98	19·38	
112	87	199	508	499	1,007	·13	3·83	18·49	3·40	·59	31·08	35·12	32·95	67
199	172	371	10,027	8,242	18,269	·02	7·40	18·98	1·26	·36	28·35	28·97	28·63	68
311	259	570	10,535	8,741	19,276	·03	7·24	18·97	1·35	·38	28·47	29·27	28·83	
255	245	500	1,182	1,199	2,381	·01	·38	16·59	1·81	·29	21·87	26·99	24·17	69
953	788	1,741	16,054	13,594	29,648	·02	6·99	17·52	1·40	·45	28·4	27·63	28·05	70
1,208	1,033	2,241	17,236	14,793	32,029	·02	6·42	17·44	1·44	·44	27·84	27·58	27·72	
38	26	64	187	171	358	...	·26	12·32	2·46	·36	19·47	18·07	18·77	71
657	503	1,160	6,987	5,751	12,738	...	4·74	9·65	2·85	·69	20·71	18·62	19·75	72
695	529	1,224	7,174	5,922	13,096	...	4·62	9·73	2·84	·69	20·7[illegible]	18·60	19·73	
54	34	88	485	396	881	...	5·19	15·45	1·57	·42	27 32	22·95	25·17	73
318	22	540	9,454	7,136	16,590	·01	3 10	12·13	·35	·59	17 9[illegible]	15·41	16·74	74
372	256	628	9,939	7,532	17,471	·01	3·17	12·24	·39	·59	18·21	15·68	17·03	
54	34	88	218	154	372	...	·20	14·33	3·99	1·03	30·73	20·75	25·62	75
569	408	977	6,360	4,621	10,981	...	2·32	12·20	4·36	·45	23·63	18·82	21·33	76
623	442	1,065	6,578	4,775	11,353	...	2·26	12·26	4·35	·56	23·82	18·87	21·45	
95	84	179	362	347	709	·04	2·32	12·91	3·94	·67	26·59	26·63	26·61	77
345	239	584	7,817	5,970	13,787	...	4·14	11·93	2·43	1·16	22·58	18·38	20·54	78
440	323	763	8,179	6,317	14,496	·01	4·07	11·97	2 48	1·14	22·62	18·69	20·78	
221	152	373	902	747	1,649	...	·57	7·17	·73	·26	11·03	11·65	11·30	79
502	312	814	11,987	9,937	21,924	·01	5·22	9·15	1·86	·65	18·92	16·15	17·56	80
723	464	1,187	12,889	10,684	23,573	·01	4·73	8·95	1·74	·61	18·02	15·73	16·90	
34	17	51	1,151	827	1,978	2·88	·38	33·04	·69	·31	41·74	34·37	38·30	81
2,116	1,330	3,446	34,367	23,161	57,528	1·95	7·00	16·57	1·29	·67	32·71	23·87	29·23	82
2,150	1,347	3,497	35,518	23,988	59,506	1·97	6·83	16·99	1·27	·66	32·94	25·48	29·46	
740	439	1,179	11,334	8,141	19,475	·65	1·44	9 32	·39	·60	14·44	11·82	13·22	83

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	4.			5.		
			Population according to Census of 1872.			*Cholera.*		
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.
84	AZAMGARH.	Azamgarh T., ...	8,916	7,064	15,980	...	...	...
85		Mau T., ...	5,794	5,521	11,315	...	5	5
		Total of Towns, ...	14,710	12,585	27,295	...	5	5
86		In the 27 Rural Circles,... ..	811,435	692,680	1,504,115	208	143	351
		Total of District, ...	826,145	705,265	1,531,410	208	148	356
87	GHAZIPUR.	Ghazipur T., ...	19,889	19,619	39,508	16	7	23
88		In the 27 Rural Circles, ...	676,683	629,210	1,305,893	44	59	103
		Total of District, ...	696,572	648,829	1,345,401	60	66	126
89	BENARES.	Benares T., ...	96,814	90,527	187,341	64	34	98
90		Ramnagar T., ...	6,256	5,697	11,953	6	9	15
		Total of Towns, ...	103,070	96,224	199,294	70	43	113
91		In the 14 Rural Circles,... ...	303,274	291,131	594,405	79	59	138
		Total of District, ...	406,344	387,355	793,699	149	102	251
92	MIRZAPUR.	Mirzapur T, ...	39,814	37,415	77,229	7	6	13
93		Chunar T., ...	5,976	6,313	12,289	7	5	12
		Total of Towns, ...	45,790	43,728	89,518	14	11	25
94		In the 23 Rural Circles,... ...	474,706	451,069	925,775	53	31	84
		Total of District, ...	520,493	494,797	1,015,293	67	42	109
95	JALAUN.	Kalpi T., ...	8,021	7,549	15,570	...	...	...
96		Kunch T., ...	7,309	7,139	14,448	...	...	...
97		Jalaun T., ...	5,309	4,888	10,197	...	...	...
		Total of Towns, ...	20,639	19,576	40,215	..	...	...
98		In the 21 Rural Circles, ...	195,968	168,201	364,169	1	1	2
		Total of District, ...	216,607	187,777	404,384	1	1	2
99	JHANSI.	Mau T., ...	8,205	8,223	16,428	...	...	...
100		In the 24 Rural Circles, ...	159,314	141,993	301,307	...	...	...
		Total of District, ...	167,519	150,216	317,735	...	...	...
101	LALITPUR.	Total of District containing 20 Circles.	111,625	101,003	212,628	...	...	...
		GRAND TOTAL FOR THE PROVINCE, ...	16,406,833	14,362,223	30,769,056	3,572	2,824	6,396

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874—(continued.)

6.			7.			8.			
Small-pox.			*Fevers.*			*Bowel Complaints.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
13	14	27	168	164	332	32	25	57	84
80	91	171	97	87	184	22	18	40	85
93	105	198	265	251	516	54	43	97	
5,214	4,158	9,372	12,929	10,305	23,234	1,462	956	2,418	86
5,307	4,263	9,570	13,194	10,556	23,750	1,516	999	2,515	
38	23	61	361	337	698	87	52	139	87
3,043	2,678	5,721	14,167	8,643	19,810	410	253	663	88
3,081	2,701	5,782	14,528	8,980	20,508	497	305	802	
19	16	35	1,449	1,130	2,579	92	77	169	89
...	2	2	61	52	113	25	11	36	90
19	18	37	1,510	1,182	2,692	117	88	205	
219	223	442	4,015	2,973	6,988	577	316	893	91
238	241	479	5,525	4,155	9,680	694	404	1,098	
17	16	33	504	545	1,049	80	79	159	92
15	13	28	158	117	275	19	13	32	93
32	29	61	662	662	1,324	99	92	191	
1,371	1,345	2,716	7,015	5,831	12,846	623	387	1,010	94
1,403	1,374	2,777	7,677	6,499	14,170	722	479	1,201	
9	4	13	173	101	274	7	6	13	95
14	7	21	149	122	271	76	71	147	96
15	6	21	134	105	239	4	7	11	97
38	17	55	456	328	784	87	84	171	
766	596	1,362	2,917	2,107	5,024	672	404	1,076	28
804	613	1,417	3,373	2,435	5,808	759	488	1,247	
3	2	5	101	88	189	59	35	94	99
223	184	407	1,845	1,396	3,241	278	183	461	100
226	186	412	1,946	1,484	3,430	337	218	555	
214	228	442	942	804	1,746	529	370	899	101
50,783	42,464	93,247	247,525	202,063	449,588	34,871	25,994	60,865	

APPEN
ANNUAL

Deaths registered from Different Causes in the Rural Circles and

1.	2.	3.	9.												
			Injuries.												
			Suicide.			*Wounding.*			*Accidents.*			*Snake-bite or killed by Wild Beasts.*			
Number.	District.	Rural Circles or Towns.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total.
84	Azamgarh.	Azamgarh T., ...	...	...	...	...	...	...	...	...	...	1	...	1	1
85		Mau T., ...	...	...	...	1	...	1	1	3	4	1	1	2	7
		Total of Towns, ...	...	...	...	1	...	1	1	3	4	2	1	3	8
86		In the 27 Rural Circles,	20	65	85	35	12	47	342	372	714	39	72	111	7
		Total of District, ...	20	65	85	36	12	48	343	375	718	41	73	114	965
87	Ghazipur.	Ghazipur T., ...	1	3	4	2	...	2	1	7	8	...	1	1	15
88		In the 27 Rural Circles,	7	53	60	20	10	30	218	316	534	28	38	66	690
		Total of District, ...	8	56	64	22	10	32	219	323	542	28	39	67	705
89	Benares.	Benares, T., ...	2	1	3	8	1	9	33	35	68	2	2	4	84
90		Ramnagar T., ...	...	...	...	1	...	1	2	1	3	..	1	1	5
		Total of Towns, ...	2	1	3	9	1	10	35	36	71	2	3	5	89
91		In the 14 Rural Circles,	5	22	27	13	4	17	115	140	255	32	48	80	379
		Total of District, ...	7	23	30	22	5	27	150	176	326	34	51	85	468
92	Mirzapur.	Mirzapur T., ...	1	2	3	2	4	6	10	15	25	...	2	2	36
93		Chunar T., ...	...	1	1	...	1	1	6	1	7	1	...	1	10
		Total of Towns, ...	1	3	4	2	5	7	16	16	32	1	2	3	46
94		In the 23 Rural Circles,	16	27	43	28	24	52	238	174	412	103	120	223	730
		Total of District, ...	17	30	47	30	29	59	254	190	444	104	122	226	776
95	Jaunpur.	Kalpi T., ...	3	2	5	1	...	1	1	1	2	...	...	...	8
96		Kunch T., ...	4	3	7	...	...	...	1	1	2	2	1	3	12
97		Jalaun T., ...	...	...	...	...	...	...	1	1	2	2	...	2	4
		Total of Towns, ...	7	5	12	1	...	1	3	3	6	4	1	5	24
98		In the 21 Rural Circles,	15	40	55	16	7	23	43	54	97	43	45	88	263
		Total of District, ...	22	45	67	17	7	24	46	57	103	47	46	93	287
99	Jhansi.	Mau T., ...	1	2	3	...	...	...	2	3	5	...	...	...	8
100		In the 24 Rural Circles,	16	49	65	12	2	14	40	56	96	19	27	46	221
		Total of District, ...	17	51	68	12	2	14	42	59	101	19	27	46	229
101	Lalitpur.	Total of District containing 20 Circles.	3	13	16	8	5	13	29	54	83	29	32	61	173
		Grand Total for the Province.	425	1,086	1,511	864	484	1,348	4,867	4,471	9,338	1,739	2,093	3,832	16,029

DIX C.

FORM No. III.

Towns of the North-Western Provinces during the year 1874—(concluded.)

10.			11.			12.								13.
All other Causes.			*Total Deaths from all Causes.*			Ratio of deaths per 1,000 of Population.								
											From all Causes.			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	Male.	Female.	Total.	Number.
14	6	20	226	209	437	...	1·69	20·78	3·57	·62	25·57	29·58	27·34	84
15	7	22	217	212	429	·44	15·11	16·26	3·53	·61	37·45	38·39	37·91	85
29	13	42	445	421	866	·18	7·25	18·90	3·55	·29	30·25	33·45	31·72	
528	370	898	20,777	16,453	37,230	·23	6·23	15·44	1·60	·63	25·60	23·75	24·75	86
557	383	940	21,222	16,874	38,096	·23	6·25	15·50	1·64	·62	25·68	23 92	24·87	
33	28	61	539	458	997	·58	1·54	17·66	3·52	·38	27·10	23·34	25·23	87
314	227	541	15,251	12,277	27,528	·07	4·38	15·17	·50	·52	22·53	19·51	21·08	88
347	255	602	15,790	12,735	28,525	·09	4·29	15·24	·59	·52	22·67	19·62	21·20	
128	88	216	1,797	1,384	3,181	·52	·18	13·76	·91	·44	18·56	15·28	16·98	89
15	11	26	110	87	197	1·25	·16	2·45	3·01	·41	17·58	15·27	16·48	90
143	99	242	1,907	1,471	3,378	·56	·18	13·50	1·03	·44	18·50	15·28	16·95	
398	285	683	5,453	4,070	9,523	·23	·74	11·75	1·50	·63	17·98	13·78	16·02	91
541	384	925	7,360	5,541	12,901	·31	·60	12·19	1·38	·59	18·11	14·30	16·25	
286	239	525	907	908	1,815	·16	·42	13·58	2·05	·46	22·78	24·26	23·51	92
38	31	69	244	182	426	·97	2·27	22·37	2·60	·81	40·83	28·83	34·66	93
324	270	594	1,151	1,090	2,241	·28	·68	14·79	2·13	·51	25·13	24·92	25·03	
1,025	690	1,715	10,472	8,629	19,101	·09	2·93	13·87	1·09	·78	22·06	19·13	20·63	94
1,349	960	2,309	11,623	9,719	21,342	·10	2·73	13·95	1·18	·76	22·33	19·64	21·02	
65	21	86	259	135	394	...	·83	17·59	·83	·51	32·29	17·88	25·30	95
15	8	23	261	213	474	...	1·45	18·75	10·37	·83	35·70	29·83	32·80	96
36	14	50	192	133	325	...	2·05	23·43	1·08	·49	38·04	27·21	31·87	97
116	43	159	712	481	1,193	...	1·36	19·49	4·25	·59	34·49	24·57	29·66	
555	319	874	5,028	3,573	8,601	...	3·74	13·79	2·95	·72	25·65	21·24	23·61	98
671	362	1,033	5,740	4,054	9,794	...	3·50	14·36	3·08	·71	26·49	21·59	24·22	
4	5	9	170	135	305	...	·30	11·50	5·72	·48	20·72	16·41	18·56	99
321	212	533	2,754	2,109	4,863	...	1·35	10·75	1·53	·73	17·28	14·85	16·13	100
325	217	542	2,924	2,244	5,168	...	1·29	10·79	1·74	·72	17·45	14·93	16·26	
577	454	1,031	2,331	1,960	4,291	...	2·07	8·21	4·22	·81	20·88	19·40	20·18	101
26,624	19,510	46,134	371,270	300,989	672,259	·20	3·03	14·61	1·98	·52	22·62	20·95	21·84	

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to Age in the Rural Circles and Towns of the North-Western Provinces, during the year 1874.

1.	2.	3.	4.		5.	6.	7.		8.		9.		
			Infants (children unable to walk.)		*Boys.*	*Girls.*	*Adults.*		*Old people.*		*Total.*		
Number.	District.	Rural Circles or Towns.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1	KUMAON.	Total District containing 8 Circles,	992	685	741	550	900	669	1,197	1,098	3,830	3,002	6,832
2	GARHWAL.	Total of District containing 12 Circles,	841	679	510	514	655	721	1,276	874	3,282	2,788	6,070
3	TARAI.	Kashipur T., ...	48	42	28	18	62	39	44	37	182	136	318
4		In the 9 Rural Circles,	666	635	526	470	767	577	750	579	2,709	2,261	4,970
		Total of District, ...	714	677	554	488	829	616	794	616	2,891	2,397	5,288
5	BIJNOR.	Nagina T., ...	47	40	27	25	21	35	41	41	136	141	277
6		Najibabad T., ...	55	48	32	28	56	34	75	54	218	164	382
7		Bijnor T., ...	83	64	31	29	20	29	34	40	168	162	330
8		Sherkot T., ...	41	25	42	21	35	32	34	43	152	121	273
9		Chandpur T., ...	77	59	27	27	9	18	29	33	142	137	279
		Total of Towns, ...	303	236	159	130	141	148	213	211	816	725	1,541
10		In the 27 Rural Circles,	2,409	2,165	1,661	1,418	1,172	897	1,984	1,735	7,226	6,215	13,441
		Total of District, ...	2,712	2,401	1,820	1,548	1,313	1,045	2,197	1,946	8,042	6,940	14,982
11	MORADABAD.	Moradabad T., ...	350	332	173	125	103	109	248	206	874	772	1,646
12		Sambhal T., ...	193	158	126	130	79	71	180	167	578	526	1,104
13		Amroha T., ...	229	167	137	128	58	70	121	122	545	487	1,032
14		Chandausi T., ...	158	144	57	30	74	53	78	56	367	283	650
		Total of Towns, ...	930	801	493	413	314	303	627	551	2,364	2,068	4,432
15		In the 22 Rural Circles,	3,185	2,922	3,033	2,292	1,637	1,391	2,723	2,331	10,578	8,936	19,514
		Total of District, ...	4,115	3,723	3,526	2,705	1,951	1,694	3,350	2,882	12,942	11,004	23,946
16	BAREILLY.	Bareilly T., ...	408	408	350	415	153	229	337	278	1,248	1,330	2,578
17		Pilibhit T., ...	79	57	65	54	87	74	89	54	320	239	559
18		Aonla T., ...	172	123	157	89	124	95	210	182	663	489	1,152
		Total of Towns, ...	659	588	572	558	364	398	636	514	2,231	2,058	4,289
19		In the 27 Rural Circles,	2,881	2,613	2,989	2,393	2,569	1,957	3,855	3,180	12,294	10,143	22,437
		Total of District, ...	3,540	3,201	3,561	2,951	2,933	2,355	4,491	3,694	14,525	12,201	26,726

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to Age in the Rural Circles and Towns in the North-Western Provinces, during the year 1874—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number	District.	Rural Circles or Towns.	*Infants (children unable to walk.)*		*Boys.*	*Girls.*	*Adults.*		*Old people.*		*Total.*		
			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
20	SHAHJAHANPUR.	Shahjahanpur T., ...	401	322	223	211	110	154	224	197	958	884	1,842
21		In the 23 Rural Circles,	3,743	3,387	3,178	2,778	1,458	1,442	3,467	2,713	11,846	10,320	22,166
		Total of District, ...	4,144	3,709	3,401	2,989	1,568	1,596	3,691	2,910	12,804	11,204	24,008
22	BUDAUN.	Budaun T., ...	210	175	106	77	58	79	129	124	503	455	958
23		Sahaswan T., ...	162	135	26	22	33	35	66	62	287	254	541
		Total of Towns, ...	372	310	132	99	91	114	195	186	790	709	1,499
24		In the 18 Rural Circles,	3,378	2,924	2,383	1,780	1,680	1,410	3,069	2,507	10,510	8,571	19,081
		Total of District, ...	3,750	3,234	2,515	1,879	1,771	1,524	3,264	2,693	11,300	9,280	20,580
25	DEHRA DUN.	Total of District containing 6 Circles.	241	146	162	115	444	280	298	176	1,145	717	1,862
26	SAHARANPUR.	SaharanpurT., ...	285	230	105	82	105	150	160	125	655	557	1,212
27		Deoband T., ...	113	107	26	14	43	44	63	58	245	223	468
28		Gangoh T., ...	83	73	36	34	15	31	38	39	172	177	349
29		Roorkee T., ...	18	14	19	7	30	22	24	19	91	62	153
		Total of Towns, ...	499	424	186	137	193	247	285	241	1,163	1,019	2,182
30		In the 22 Rural Circles,	2,307	2,147	1,564	1,217	1,669	1,451	2,225	1,842	7,765	6,657	14,422
		Total of District, ...	2,806	2,571	1,750	1,354	1,862	1,668	2,510	2,083	8,928	7,676	16,604
31	MUZAFFARNAGAR.	Kairana T., ...	114	104	79	56	38	47	69	71	300	278	578
32		Kandhla T., ...	85	80	42	43	20	26	35	32	182	181	363
33		Muzaffarnagar T., ...	58	45	25	20	33	32	36	37	152	134	286
		Total of Towns, ...	257	229	146	119	91	105	140	140	634	593	1,227
34		In the 25 Rural Circles,	2,611	2,094	1,647	1,234	1,459	1,338	2,196	1,898	7,913	6,564	14,477
		Total of District, ...	2,868	2,323	1,793	1,353	1,550	1,443	2,336	2,038	8,547	7,157	15,704
35	MEERUT.	Meerut T., ...	500	465	180	188	182	244	410	380	1,272	1,277	2,549
36		Hapur T., ...	113	114	76	71	79	75	133	145	401	406	807
37		Sirdhana, ...	43	48	32	27	40	46	77	57	192	178	370
		Total of Towns, ...	656	627	288	286	301	365	620	583	1,865	1,861	3,726
38		In the 40 Rural Circles,	3,091	2,532	3,792	2,639	3,735	3,708	5,822	5,132	16,440	14,011	30,451
		Total of District, ...	3,747	3,159	4,080	2,925	4,036	4,073	6,442	5,715	18,305	15,872	34,177

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to Age in the Rural Circles and Towns of the North-Western Provinces, during the year 1874—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	*Infants (children unable to walk.)*		*Boys.*	*Girls.*	*Adults.*		*Old people.*		*Total*		
			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
39	BULANDSHAHR.	Khurja T., ...	263	277	408	393	301	354	352	526	1,324	1,550	2,874
40		Sikandarabad T., ...	196	187	128	168	74	87	140	166	538	608	1,146
41		Bulandshahr T., ...	187	211	166	189	76	88	159	182	588	670	1,258
42		Shikarpur T., ...	30	43	15	8	15	6	33	34	93	91	184
		Total of Towns, ...	676	718	717	758	466	535	684	908	2,543	2,919	5,462
43		In the 29 Rural Circles,	3,591	3,148	4,237	3,597	2,753	2,882	4,647	4,266	15,228	13,893	29,121
		Total of District, ...	4,267	3,866	4,954	4,355	3,219	3,417	5,331	5,174	17,771	16,812	34,583
44	ALIGARH.	Aligarh or Koil T., ...	304	310	178	144	152	226	229	202	863	882	1,745
45		Hathras T., ...	235	191	193	181	111	137	189	159	728	668	1,396
46		Atrauli T., ...	115	102	35	44	49	50	81	71	280	267	547
47		Sikandra Rao T., ...	39	41	34	23	19	31	41	27	133	122	255
		Total of Towns, ...	693	644	440	392	331	444	540	459	2,004	1,939	3,943
48		In the 28 Rural Circles,	2,469	1,979	2,845	2,113	1,804	1,775	3,374	2,898	10,492	8,765	19,257
		Total of District, ...	3,162	2,623	3,285	2,505	2,135	2,219	3,914	3,357	12,496	10,704	23,200
49	ETAH.	Kasganj T., ...	147	128	25	22	36	76	113	85	321	311	632
50		Soron T., ...	62	71	28	20	42	47	62	56	194	194	388
		Total of Towns, ...	209	199	53	42	78	123	175	141	515	505	1,020
51		In the 18 Rural Circles,	2,745	2,324	1,523	1,154	1,194	1,169	2,507	1,957	7,969	6,604	14,573
		Total of District, ...	2,954	2,523	1,576	1,196	1,272	1,292	2,682	2,098	8,484	7,109	15,593
52	MUTTRA.	Muttra T., ...	342	294	199	184	179	193	326	274	1,046	945	1,991
53		Brindaban T., ...	64	81	83	91	82	66	189	203	418	441	859
54		Kosi T., ...	41	48	27	23	21	36	56	43	145	150	295
		Total of Towns, ...	447	423	309	298	282	295	571	520	1,609	1,536	3,145
55		In the 27 Rural Circles,	1,116	789	1,601	1,152	1,324	1,171	2,108	1,823	6,149	4,935	11,084
		Total of District, ...	1,563	1,212	1,910	1,450	1,606	1,466	2,679	2,343	7,758	6,471	14,229
56	FARUKHABAD.	Farukhabad T., ...	173	135	95	79	75	144	167	154	510	513	1,022
57		Kanauj T., ...	14	4	11	9	16	27	26	18	67	58	125
58		Kaimganj T., ...	18	13	9	4	6	10	21	14	54	41	95
		Total of Towns, ...	205	152	115	92	97	181	214	186	631	611	1,242
59		In the 26 Rural Circles,	1,975	1,730	2,296	1,654	1,602	1,410	3,433	2,472	9,306	7,266	16,572
		Total of District, ...	2,180	1,882	2,411	1,746	1,699	1,591	3,647	2,658	9,937	7,877	17,814

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to Age in the Rural Circles and Towns of the North-Western Provinces during the year 1874—(continued.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
Number.	District.	Rural Circles or Towns.	*Infants (children unable to walk.)*		*Boys.*	*Girls.*	*Adults.*		*Old people.*		*Total.*		
			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
60	MAINPURI.	Mainpuri T., ...	114	110	152	123	62	98	112	82	440	413	853
61		Shikohabad T., ...	44	30	32	17	42	57	70	65	188	169	357
		Total of Towns, ...	158	140	184	140	104	155	182	147	628	582	1,210
62		In the 17 Rural Circles,	2,072	1,788	2,814	1,978	1,789	1,605	2,977	2,226	9,652	7,597	17,249
		Total of District, ...	2,230	1,928	2,998	2,118	1,893	1,760	3,159	2,373	10,280	8,179	18,459
63	AGRA.	Agra T., ...	564	509	363	318	572	520	687	539	2,186	1,886	4,072
64		Jalesar T., ...	118	97	59	54	49	78	76	99	302	328	630
65		Firozabad T., ...	33	31	35	26	32	54	41	42	141	153	294
		Total of Towns, ...	715	637	457	398	653	652	804	680	2,629	2,367	4,996
66		In the 35 Rural Circles,	1,586	1,327	2,042	1,436	1,780	1,591	3,594	2,858	9,002	7,212	16,214
		Total of District, ...	2,301	1,964	2,499	1,834	2,433	2,243	4,398	3,538	11,631	9,579	21,210
67	ETAWAH.	Etawah T., ...	198	165	111	112	72	97	128	125	508	499	1,007
68		In the 20 Rural Circles,	2,517	2,093	2,775	2,214	1,680	1,543	3,055	2,392	10,027	8,242	18,269
		Total of District, ...	2,715	2,258	2,886	2,326	1,751	1,640	3,183	2,517	10,535	8,741	19,276
69	CAWNPORE.	Cawnpore T., ...	390	357	173	163	237	364	382	315	1,182	1,199	2,381
70		In the 26 Rural Circles,	4,583	3,912	4,595	3,619	2,512	2,296	4,364	3,767	16,054	13,594	29,648
		Total of District, ...	4,973	4,269	4,768	3,782	2,749	2,660	4,746	4,082	17,236	14,793	32,029
71	FATEHPUR.	Fatehpur T., ...	53	30	31	24	55	47	48	70	187	171	358
72		In the 22 Rural Circles,	921	699	1,933	1,575	1,764	1,557	2,369	1,920	6,987	5,751	12,738
		Total of District, ...	974	729	1,964	1,599	1,819	1,604	2,417	1,990	7,174	5,922	13,096
73	JAUNPUR.	Jaunpur T., ...	116	78	143	115	140	120	86	83	485	396	881
74		In the 18 Rural Circles,	1,132	895	2,408	1,942	3,132	2,234	2,782	2,065	9,454	7,136	16,590
		Total of District, ...	1,248	973	2,551	2,057	3,272	2,354	2,868	2,148	9,939	7,532	17,471
75	HAMIRPUR.	Rath T., ...	24	2	34	13	43	28	117	92	218	154	372
76		In the 29 Rural Circles,	1,111	875	1,170	865	1,369	898	2,710	1,983	6,360	4,621	10,981
		Total of District, ...	1,135	876	1,204	878	1,412	926	2,827	2,075	6,578	4,775	11,353
77	BANDA.	Banda T., ...	107	100	68	70	68	43	119	134	362	347	709
78		In the 28 Rural Circles,	942	754	1,805	1,557	2,183	1,328	2,887	2,331	7,817	5,970	13,787
		Total of District, ...	1,049	854	1,873	1,627	2,251	1,371	3,006	2,465	8,179	6,317	14,496
79	ALLAHABAD.	Allahabad T., ...	272	219	149	123	215	207	266	198	902	747	1,649
80		In the 33 Rural Circles,	2,051	1,752	4,124	3,273	2,285	2,063	3,527	2,849	11,987	9,937	21,924
		Total of District, ...	2,323	1,971	4,273	3,396	2,500	2,270	3,793	3,047	12,889	10,684	23,573
81	GORAKHPUR.	Gorakhpur T., ...	128	86	268	183	393	275	362	283	1,151	827	1,978
82		In the 35 Rural Circles,	4,033	2,807	10,025	7,225	11,498	7,073	8,811	6,056	34,367	23,161	57,528
		Total of District, ...	4,161	2,893	10,293	7,408	11,891	7,348	9,173	6,339	35,518	23,988	59,506

APPENDIX D.

ANNUAL FORM No. IV.

Deaths registered according to Age in the Rural Circles and Towns of the North-Western Provinces, during the year 1874—(concluded.)

1.	2.	3.	4.		5.	6.	7.		8.		9.		
			Infants (children unable to walk.)		*Boys.*	*Girls.*	*Adults.*		*Old people.*		*Total.*		
Number.	District.	Rural Circles or Towns.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
83	Basti.	Total district containing 27 Circles, ...	1,421	1,039	2,576	1,962	3,549	2,251	3,788	2,889	11,334	8,141	19,475
84	Azamgarh.	Azamgarh T., ...	63	56	44	41	54	59	67	53	228	209	437
85		Mau T., ...	43	29	72	74	55	57	47	52	217	212	429
		Total of Towns, ...	106	85	116	115	109	116	114	105	445	421	866
86		In the 27 Rural Circles,	2,659	2,310	6,618	4,669	5,541	4,457	5,959	5,017	20,777	16,453	37,230
		Total of District, ...	2,765	2,395	6,734	4,784	5,650	4,573	6,073	5,122	21,222	16,874	38,096
87	Ghazipur.	Ghazipur T., ...	125	78	160	110	131	138	123	132	539	458	997
88		In the 27 Rural Circles,	2,245	1,715	5,007	3,907	3,999	3,281	4,000	3,374	15,251	12,277	27,528
		Total of District, ...	2,370	1,793	5,167	4,017	4,130	3,419	4,123	3,506	15,790	12,735	28,525
89	Benares.	Benares T., ...	297	213	325	242	508	460	667	469	1,797	1,384	3,181
90		Ramnagar T., ...	28	17	12	17	35	25	35	28	110	87	197
		Total of Towns, ...	325	230	337	259	543	485	702	497	1,907	1,471	3,378
91		In the 14 Rural Circles,	1,206	980	957	772	1,614	1,167	1,676	1,151	5,453	4,070	9,523
		Total of District, ...	1,531	1,210	1,294	1,031	2,157	1,652	2,378	1,648	7,360	5,541	12,901
92	Mirzapur.	Mirzapur T., ...	327	266	147	130	195	242	238	270	907	908	1,815
93		Chunar T., ...	66	41	52	46	49	34	77	61	244	182	426
		Total of Towns, ...	393	307	199	176	244	276	315	331	1,151	1,090	2,241
94		In the 23 Rural Circles,	2,036	1,487	2,657	2,420	2,925	2,337	2,854	2,385	10,472	8,629	19,101
		Total of District, ...	2,429	1,794	2,856	2,596	3,169	2,613	3,169	2,716	11,623	9,719	21,342
95	Jalaun.	Kalpi T., ...	73	14	28	18	62	50	96	53	259	135	394
96		Kunch T., ...	62	42	47	37	53	56	99	78	261	213	474
97		Jalaun T., ...	32	26	27	10	34	22	99	75	192	133	325
		Total of Towns, ...	167	82	102	65	149	128	294	206	712	481	1,193
98		In the 21 Rural Circles,	794	703	1,059	807	1,358	828	1,817	1,235	5,028	3,573	8,601
		Total of District, ...	961	785	1,161	872	1,507	956	2,111	1,441	5,740	4,054	9,794
99	Jhansi.	Mau T., ...	41	26	25	21	52	36	52	52	170	135	305
100		In the 24 Rural Circles,	530	400	449	402	791	541	984	766	2,754	2,109	4,863
		Total of District, ...	571	426	474	423	843	577	1,036	818	2,924	2,244	5,168
101	Lalitpur.	Total of District containing 20 Circles.	654	579	451	425	622	485	604	471	2,331	1,960	4,291
		Grand Total for the Province.	80,407	67,370	94,571	73,708	83,341	68,371	112,951	91,540	371,270	300,989	672,259

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces, during the year 1874.

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.
1	KUMAUN.	Total of District containing 8 Circles.	425,963	5,569	1,356	432,888	6,762	61	9	6,832	15·87	10·95	6·63	15·78
2	GARHWAL.	Total of District containing 12 Circles.	308,398	1,799	85	310,282	6,059	9	2	6,070	19·65	5·00	23·53	19·56
3	TARAI.	Kashipur T., ...	7,900	5,308	13	13,221	190	128	...	318	24·05	24·11	...	24·05
4		In the 9 Rural Circles.	114,757	57,669	...	172,426	2,940	2,029	1	4,970	25·62	35·18	...	28·82
		Total of District,	122,657	62,977	13	185,647	3,130	2,157	1	5,288	25·51	34·25	7·69	28·48
5	BIJNOR.	Nagina T., ...	7,465	12,215	16	19,696	109	168	...	277	14·60	13·75	...	14·06
6		Najibabad T., ...	11,713	7,936	7	19,656	199	182	1	382	16·99	22·93	142·85	19·43
7		Bijnor T., ...	6,599	6,439	37	13,066	175	155	...	330	26·55	24·07	...	25·25
8		Sherkot T., ...	3,958	8,628	...	12,586	102	171	...	273	25·77	19·81	...	21·69
9		Chandpur T., ...	3,251	8,782	...	12,033	98	178	3	279	30·14	20·27	...	23·18
		Total of Towns,	32,977	44,000	60	77,037	683	854	4	1,541	20·71	19·40	66·66	20·00
10		In the 27 Rural Circles.	460,624	199,455	36	660,115	9,612	3,928	1	13,441	20·87	19·19	27·77	23·61
		Total of District,	493,601	243,455	96	737,152	10,295	4,682	5	14,982	20·85	19·23	52·08	20·32
11	MORADABAD.	Moradabad T., ...	29,337	30,212	317	59,866	916	729	1	1,646	31·22	24·13	3·15	27·49
12		Sambhal T., ...	6,082	28,547	10	34,639	473	631	...	1,104	77·77	22·10	...	31·87
13		Amroha T., ...	10,128	24,630	21	34,779	280	751	1	1,032	27·64	30·49	47·61	29·67
14		Chandausi T., ...	17,686	5,849	5	23,540	519	130	1	650	7·35	22·22	200·00	20·76
		Total of Towns,	63,233	89,238	353	152,824	2,188	2,241	3	4,432	34·08	25·11	8·49	29·00
15		In the 22 Rural Circles.	688,546	280,711	50	969,307	13,762	5,752	...	19,514	19·98	20·49	...	20·13
		Total of District,	751,779	369,949	403	1,122,131	15,950	7,993	3	23,946	21·21	21·60	7·44	21·34
16	BAREILLY.	Bareilly T., ...	46,745	43,463	483	90,691	1,413	1,156	9	2,578	30·22	26·59	18·63	28·42
17		Pilibhit T., ...	17,499	12,327	14	29,840	343	216	...	559	19·60	17·52	...	18·73
18		Aonla T., ...	6,122	5,031	...	11,153	1,010	142	...	1,152	164·97	28·22	...	103·29
		Total of Towns,	70,366	60,821	497	131,684	2,766	1,514	9	4,289	33·46	24·89	18·11	32·57
19		In the 27 Rural Circles.	1,127,217	247,861	39	1,375,117	18,451	3,985	1	22,437	16·36	16·07	25·64	16·31
		Total of District,	1,197,583	308,682	536	1,506,801	21,217	5,499	10	26,726	17·71	17·81	18·65	17·73
20	SHAHJAHANPUR.	Shahjahanpur T.,	41,862	37,538	87	79,487	947	894	1	1,842	22·62	23·81	11·49	23·17
21		In the 25 Rural Circles.	780,714	89,061	209	869,984	20,129	2,036	1	22,166	25·78	22·86	4·78	25·48
		Total of District,	822,576	126,599	296	949,471	21,076	2,930	2	24,008	25·62	23·14	6·75	25·28

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces, during the year 1874—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.
22	BUDAUN.	Budaun T., ...	12,196	19,031	...	31,227	418	540	...	958	34·27	28·37	...	30·67
23		Sahaswan T., ...	8,243	8,814	4	17,061	276	265	...	541	33·47	30·06	...	31·71
		Total of Towns,	20,439	27,845	4	48,288	694	805	...	1,499	33·95	28·91	...	31·04
24		In the 18 Rural Circles.	774,093	111,842	125	886,060	16,667	2,412	2	19,081	21·53	21·56	16·00	21·53
		Total of District,	794,532	139,687	129	934,348	17,361	3,217	2	20,580	21·85	23·03	15·50	22·02
25	DEHRA DUN.	Total of District containing 6 Circles.	102,814	12,420	477	115,711	1,650	189	23	1,862	16·05	15·21	48·22	16·09
26	SAHARANPUR.	Saharanpur T., ...	20,703	24,296	20	45,019	538	672	2	1,212	25·98	27·65	100·00	26·92
27		Deoband T., ...	8,829	10,554	...	19,383	190	278	...	468	21·52	26·35	...	24·14
28		Gangoh T., ...	5,049	5,930	3	10,982	172	177	...	349	34·06	29·85	...	31·78
29		Roorkee T., ...	6,925	3,551	302	10,778	115	38	...	153	16·60	10·70	...	14·19
		Total of Towns,	41,506	44,331	325	86,162	1,015	1,165	2	2,182	24·45	26·28	6·15	25·32
30		In the 22 Rural Circles.	562,916	234,684	20	797,620	10,214	6,208	...	14,422	18·14	17·93	...	18·08
		Total of District,	604,422	279,015	345	883,782	11,229	7,373	2	16,604	18·57	19·26	5·79	18·78
31	MUZAFFARNAGAR.	Kairana T., ...	7,817	9,925	...	17,742	229	349	...	578	29·29	35·16	...	32·57
32		Kandhla T., ...	6,085	4,941	...	11,026	201	162	...	363	33·03	32·78	...	32·92
33		Muzaffarnagar T.,	6,560	4,205	28	10,793	174	112	...	286	26·52	26·63	...	26·49
		Total of Towns, ...	20,462	19,071	28	39,551	604	623	...	1,227	29·51	32·66	...	31·01
34		In the 25 Rural Circles.	478,488	172,026	7	650,521	10,298	4,178	1	14,477	21·52	24·28	142·85	22·25
		Total of District,	498,950	191,097	35	690,072	10,902	4,801	1	15,704	21·85	25·12	28·57	22·75
35	MEERUT.	Meerut T., ...	18,211	33,532	248	51,991	1,276	1,273	...	2,549	70·06	37·96	...	49·03
36		Hapur T., ...	8,696	5,847	1	14,544	480	327	...	807	55·19	55·92	...	55·48
37		Sardhana T., ...	6,474	5,641	354	12,469	195	169	6	370	30·12	29·96	16·95	29·67
		Total of Towns, ...	33,381	45,020	603	79,004	1,951	1,769	6	3,726	58·44	39·29	9·94	47·16
38		In the 40 Rural Circles.	957,845	236,837	228	1,194,910	23,843	6,598	10	30,451	24·89	27·85	43·86	25·48
		Total of District,	991,226	281,857	831	1,273,914	25,794	8,367	16	34,177	26·03	29·68	19·25	26·82
39	BULANDSHAHR.	Khurja T., ...	15,543	11,315	...	26,858	1,748	1,126	...	2,874	112·46	99·51	...	107·00
40		Sikandarabad, T,	10,933	7,395	21	18,349	684	462	...	1,146	62·56	61·12	...	62·45
41		Bulandshahr T., ...	7,905	6,894	13	14,812	684	574	...	1,258	86·52	83·26	...	84·93
42		Shikarpur T., ...	6,346	4,992	...	11,338	95	89	...	184	14·97	17·83	...	16·22
		Total of Towns, ...	40,727	30,596	34	71,357	3,211	2,251	...	5,462	78·84	73·57	...	76·53
43		In the 29 Rural Circles.	719,875	145,304	57	865,236	24,314	4,806	1	29,121	33·77	33·07	17·54	33·65
		Total of District,	760,602	175,900	91	936,593	27,525	7,057	1	34,583	36·18	40·11	10·98	36·92

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces, during the year 1874.—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.
44	ALIGARH.	Aligarh or Koil, ...	36,319	19,489	38	55,846	1,171	574	...	1,745	32·24	29·45	...	31·24
45		Hathras T., ...	28,432	2,468	...	30,900	1,295	101	...	1,396	45·54	40·92	...	45·17
46		Atrauli T., ...	9,510	6,112	...	15,622	407	140	...	547	42·79	22·90	...	35·01
47		Sikandra Rao T.,...	5,770	5,044	...	10,814	153	102	...	255	26·50	20·22	...	23·58
		Total of Towns,...	80,031	33,113	38	113,182	3,026	917	...	3 943	37·81	27·69	...	34·83
48		In the 28 Rural Circles.	875,090	84,798	38	959,926	17,967	1,290	...	19,257	20·54	15·21	...	20·06
		Total of District,	955,121	117,911	76	1,073,108	20,993	2,207	...	23,200	21·98	18·71	...	21·62
49	ETAH.	Kasganj T., ...	11,409	4,355	...	15,764	477	154	1	632	41·80	35·36	...	40·09
50		Soron T., ...	12,030	1,627	1	13,658	352	36	...	388	29·26	22·12	...	28·40
		Total of Towns,...	23,439	5,982	1	29,422	829	190	1	1,020	35·37	31·76	100·00	34·66
51		In the 18 Rural Circles.	612,710	61,296	57	674,063	13,398	1,174	1	14,573	21·86	19·15	17·54	21·62
		Total of District,	636,149	67,278	58	703,485	14,227	1,364	2	15,593	22·36	20·27	34·48	22·16
52	MUTTRA.	Muttra T., ...	54,087	9,344	...	63,431	1,696	295	...	1,991	31·35	31·57	...	31·38
53		Brindaban T., ...	20,168	836	...	21,004	837	21	1	859	41·50	25·12	...	40·89
54		Kosi T., ...	8,785	3,985	...	12,770	214	81	...	295	24·36	20·32	...	23·10
		Total of Towns,...	83,040	14,165	...	97,205	2,747	397	1	3,145	33·08	28 02	...	32·35
55		In the 27 Rural Circles.	929,955	60,182	13	790,150	10,416	668	...	11,084	11·20	11·09	...	14·02
		Total of District,	812,995	74,347	13	887,355	13,163	1,065	1	14,229	16·19	14·32	76·92	16·03
56	FARUKHABAD.	Farukhabad T., ...	52,983	22,522	446	75,951	753	269	...	1,022	14·21	11·94	...	13·45
57		Kanauj T., ...	10,864	6,229	...	17,093	93	32	...	125	85·60	5·13	...	7·31
58		Kaimganj T., ...	7,060	3,263	...	10,323	71	24	...	95	10·05	7·35	...	9·20
		Total of Towns,...	70,907	32,014	446	103,367	917	325	...	1,242	12·93	10·25	...	12·01
59		In the 26 Rural Circles.	745,826	69,524	31	815,381	14,952	1,618	2	16,572	20·04	23 27	64·51	20·32
		Total of District,	816,733	101,538	477	918,748	15,869	1,943	2	17,814	19·43	19·13	4·19	19·39
60	MAINPURI.	Mainpuri T., ...	15,020	3,435	146	18,601	738	115	...	853	49·13	33·48	...	45·85
61		Shikohabad T., ...	5,366	4,703	...	10,069	252	105	...	357	46·96	22·32	...	35·45
		Total of Towns,...	20,386	8,138	146	28,670	990	220	...	1,210	48·56	27·03	...	42·20
62		In the 17 Rural Circles.	704,277	32,827	9	737,113	16,722	526	1	17,249	23·74	16·02	111·11	23·40
		Total of District,	724,663	40,965	155	765,783	17,712	746	1	18,459	24·44	18·21	6·45	24·10

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces, during the year 1874.—(continued.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per* 1,000 *of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.
63	AGRA.	Agra T., ...	105,590	43,558	1,529	150,677	3,062	997	13	4,072	28·99	22·88	8·50	27·02
64		Jalesar T., ...	8,659	6,243	...	14,902	391	239	...	630	45·15	38·28	...	42·27
65		Firozabad T., ...	9,621	4,166	1	13,788	219	75	...	294	22·76	18·00	...	21·32
		Total of Towns,...	123,870	53,967	1,530	179,367	3,672	1,311	13	4,996	29·64	24·29	8·49	27·85
66		In the 35 Rural Circles.	861,613	53,168	36	914,817	15,376	838	...	16,214	17·84	15·76	...	17·72
		Total of District,	985,483	107,135	1,566	1,094,184	19,048	2,149	13	21,210	19·33	20·06	8·30	19·38
67	ETAWAH.	Etawah T., ...	21,241	9,256	52	30,549	707	300	...	1,007	33·28	32·41	...	32·95
68		In the 20 Rural Circles.	610,682	27,315	35	638,032	17,462	807	...	18,269	28·59	29·54	...	28·63
		Total of District,	631,923	36,571	87	668,581	18,169	1,107	...	19,276	28·75	30·27	...	28·83
69	CAWNPORE.	Cawnpore T., ...	66,288	31,894	294	98,476	1,872	507	2	2,381	28·24	15·90	6·80	24·17
70		In the 26 Rural Circles.	999,498	57,321	144	1,056,963	28,248	1,394	6	29,648	28·26	24·31	41·66	28·05
		Total of District,	1,065,786	89,215	438	1,155,439	30,120	1,901	8	32,029	28·26	21·30	18·26	27·72
71	FATEHPUR.	Fatehpur T., ...	10,460	8,604	...	19,064	202	156	...	358	19·30	18·13	...	18·77
72		In the 22 Rural Circles.	582,796	61,950	5	644,751	11,733	1,004	1	12,738	20·13	16·20	199·99	19·75
		Total of District,	593,256	70,554	5	663,815	11,935	1,160	1	13,096	20·11	16·44	199·99	19·73
73	JAUNPUR.	Jaunpur T., ...	24,045	10,949	9	35,003	601	278	2	881	24·99	25·39	222·22	25·17
74		In the 18 Rural Circles.	905,480	85,370	16	990,866	15,355	1,234	1	16,590	16·95	14·45	62·50	16·74
		Total of District,	929,525	96,319	25	1,025,869	15,956	1,512	3	17,471	17·16	15·69	120·00	17·03
75	HAMIRPUR.	Rath T., ...	10,402	4,113	...	14,515	284	88	...	372	27·30	21·39	...	25·62
76		In the 29 Rural Circles.	484,937	29,662	23	514,622	10,508	472	1	10,981	21·66	15·91	43·47	21·33
		Total of District,	495,339	33,775	23	529,137	10,792	560	1	11,353	21·78	16·58	43·47	21·45
77	BANDA.	Banda T., ...	19,424	7,218	...	26,642	549	158	2	709	28·26	21·88	...	26·61
78		In the 28 Rural Circles.	637,683	33,280	6	670,96:	13,173	613	1	13,787	20·65	18·41	166·66	20·54
		Total of District,	657,107	40,498	6	697,611	13,722	771	3	14,496	20·88	19·03	499·99	20·78
79	ALLAHABAD	Allahabad T., ...	105,644	39,379	841	145,864	1,238	385	26	1,649	11·71	9·77	30·91	11·30
80		In the 33 Rural Circles.	1,106,134	142,195	52	1,248,381	19,900	2,023	1	21,924	17·99	14·22	19·23	17·56
		Total of District,	1,211,778	181,574	893	1 394,245	21,138	2,408	27	23,573	17·44	13·26	30·23	16'90
81	GORAKHPUR.	Gorakhpur T., ...	34,502	16,924	207	51,633	1,489	485	4	1,978	43·15	28·65	19·32	38·30
82		In the 35 Rural Circles.	1,784,943	182,448	326	1,967,717	52,457	5,058	13	57,528	29·38	27·72	39·87	29·23
		Total of District,	1,819,445	199,372	533	2,019,350	53,946	5,543	17	59,506	29·65	27·80	31·89	29'46

APPENDIX E.

ANNUAL FORM No. V.

Deaths registered according to Classes in the Rural Circles and Towns of the North-Western Provinces, during the year 1874.—(concluded.)

1.	2.	3.	4.				5.				6.			
			Population according to Census of 1872.				*Number of deaths registered.*				*Ratio of deaths per 1,000 of Population.*			
Number.	District.	Name of Rural Circle and Town.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus	Muhammadans.	Christians.	Total.
83	BASTI.	Total of District containing 27 Circles.	1,247,201	225,784	9	1,472,994	16,614	2,861	...	19,475	13·32	12·67	...	13·22
84	AZAMGARH.	Azamgarh T., ...	9,883	6,077	20	15,980	293	142	2	437	29·64	23·36	100·00	27·34
85		Mau T., ...	6,532	4,783	...	11,315	279	150	...	429	42·71	31·36	...	37·91
		Total of Towns,...	16,415	10,860	20	27,295	572	292	2	866	34·84	26·88	100·00	31·72
86		In the 27 Rural Circles.	1,317,396	186,721	4	1,504,115	33,142	4,088	...	37,230	25·15	21·89	...	24·75
		Total of District,	1,333,805	197,581	24	1,531,410	33,714	4,380	2	38,096	25·27	22 16	83·33	24·87
87	GHAZIPUR.	Ghazipur T., ...	26,960	12,542	6	39,508	725	271	1	997	26·89	21·60	166·66	25·23
88		In the 27 Rural Circles.	1,194,850	110,913	130	1,305,893	25,617	1,906	5	27,528	21·43	17·18	38·46	21·08
		Total of District,	1,221,810	123,455	136	1,345,401	26,342	2,177	6	28,525	21·55	17·63	44·11	21·20
89	BENARES.	Benares T., ...	145,709	41,374	263	187,341	2,667	509	5	3,181	18·30	12 30	18·86	16·98
90		Ramnagar T., ...	9,424	2,529	...	11,953	165	32	...	197	17·50	12·65	...	16·48
		Total of Towns,...	155,126	43,903	265	199,294	2,832	541	5	3,378	18·25	12·32	18 87	16·95
91		In the 14 Rural Circles.	559,384	34,941	80	594,405	8,977	543	3	9,523	16·04	15·54	37 50	16·02
		Total of District,	714,510	78,844	345	793,699	11,809	1,084	8	12,901	16·52	13 74	23·18	16·25
92	MIRZAPUR.	Mirzapur T., ...	65,872	11,053	304	77,229	1,579	233	3	1,815	23·97	21·08	9·86	23·51
93		Chunar T., ...	9,424	2,462	403	12,289	321	98	7	426	34·06	39 80	17·37	34·66
		Total of Town, ...	75,296	13,515	707	89,518	1,900	331	10	2,241	25·23	24·49	14·14	25·03
94		In the 23 Rural Circles	874,358	51,374	43	925,775	18,227	866	8	19,101	20·84	16·85	186·04	20·63
		Total of District,	949,654	64,889	750	1,015,293	20,127	1,197	18	21,342	21·19	18·44	24·00	21·02
95	JALAUN.	Kalpi T., ...	11,414	4,156	...	15,570	286	107	1	394	25·05	25·74	...	25·30
96		Kunch T., ...	11,956	2,492	...	14,448	403	71	...	474	33·69	28·49	...	32·80
97		Jalaun T., ...	8,824	1,373	...	10,197	289	36	...	325	32·75	26·22	...	31·87
		Total of Towns,	32,194	8,021	...	40,215	978	214	1	1,193	30·37	26·67	...	29·66
98		In the 21 Rural Circles.	346,661	17,507	1	364,169	8,272	328	1	8,601	23·86	18·73	1000·0	23·61
		Total of District,	378,855	25,528	1	404,384	9,250	542	2	9,794	24·41	21·23	2000·0	24·22
99	JHANSI.	Mau T., ...	15,065	1,363	...	16,428	291	14	...	305	19·31	10·27	...	18·56
100		In the 24 Rural Circles.	290,086	11,054	167	301,307	4,738	125	...	4,863	16·33	11·30	...	16·13
		Total of District,	305,151	12,417	167	317,735	5,029	139	...	5,168	16·48	11·19	...	16·26
101	LALITPUR.	Total of District containing 20 Circles.	207,686	4,782	160	212,628	4,199	92	...	4,291	20·21	19·23	...	20·18
		GRAND TOTAL FOR THE PROVINCES.	26,562,068	4,189,348	10,640	30,769,056	582,824	89,243	192	672,259	21·93	21·30	18·04	21·84

APPEN

ANNUAL

Deaths registered from CHOLERA in the Rural Circles and Towns of the

1.	2.	3	4.						
			Population according to Census of 1872.						
Number.	District.	Name of Rural Circle or Town.	Male.	Female.	Total.	January.	February.	March.	April.
1	KUMAUN.	Total of District containing 8 Circles,	231,146	201,742	432,888	...	...	...	...
2	GARHWAL.	Total of District containing 12 Circles,	155,745	154,537	310,282	...	...	...	...
3	TARAI.	Kashipur T., ...	6,783	6,438	13,221	...	...	...	...
4		In the 11 Rural Circles,... ...	95,790	76,636	172,426	...	...	...	...
		Total of District, ...	102,573	83,074	135,647	...	...	...	...
5	BIJNOR.	Nagina T., ...	9,981	9,715	19,696	...	...	...	...
6		Najibabad T., ...	10,091	9,565	19,656	...	...	...	...
7		Bijnor T., ...	7,071	5,995	13,066	...	...	1	...
8		Sherkot T., ...	6,353	6,233	12,586	...	...	...	...
9		Chandpur T., ...	6,170	5,863	12,033	...	...	...	2
10		Total of Towns, ...	39,666	37,371	77,037	...	...	1	2
		In the 27 Rural Circles, ...	355,729	3,04,386	660,115	1	2	3	6
		Total of District, ...	395,395	3,41,757	737,152	1	2	4	8
11	MORADABAD.	Moradabad T., ...	30,664	29,202	59,866	...	...	...	...
12		Sambhal T., ...	17,095	17,544	34,639	...	1	1	...
13		Amroha T., ...	16,827	17,952	34,779	...	...	...	...
14		Chandausi T., ...	12,561	10,979	23,540	...	...	...	...
15		Total of Towns, ...	77,147	75,677	152,824	...	1	1	...
		In the 22 Rural Circles, ...	519,629	4,49,678	969,307	4	1	2	3
		Total of District, ...	596,776	525,355	1,122,131	4	2	3	3
16	BAREILLY.	Bareilly T., ...	46,269	44,422	90,691	...	...	...	...
17		Pilibhit T., ...	15,138	14,702	29,840	...	...	...	...
18		Aonla T., ...	5,840	5,313	11,153	...	...	...	...
19		Total of Towns, ...	67,247	64,437	131,684	...	...	...	...
		In the 27 Rural Circles, ...	739,666	635,451	1,375,117	...	2	1	11
		Total of District, ...	806,913	699,888	1,506,801	...	2	1	11
20	SHAHJAHANPUR.	Shahjahanpur, ...	40,241	39,246	79,487	...	...	...	...
21		In the 23 Rural Circles, ...	470,895	399,089	869,984	...	2	3	2
		Total of District, ...	511,136	438,335	949,471	...	2	3	2
22	BUDAUN.	Budaun T.,...	15,533	15,694	31,227	...	...	1	...
23		Sahaswan T., ...	8,616	8,445	17,061	...	...	1	1
24		Total of Towns, ...	24,149	24,139	48,288	...	...	2	1
		In the 18 Rural Circles, ...	479,470	406,590	886,060	1	1	1	1
		Total of District, ...	503,619	430,729	934,348	1	1	3	2
25	DEHRA DUN.	Total of District containing 6 Circles,	68,044	47,667	115,711	...	...	...	...

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1874.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
1	...	...	...	...	...	...	...	...	1	1	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3	1	2	1	...	...	...	...	3	4	7	·30	·41	·35	5
1	...	...	...	...	...	1	...	2	...	2	·19	...	·10	6
...	...	...	...	...	...	...	...	1	...	1	·14	...	·07	7
...	...	1	1	...	...	...	...	1	1	2	·15	·16	·16	8
...	...	...	...	1	1	2	...	2	4	6	·32	·68	·50	9
4	1	3	2	1	1	2	1	9	9	18	·28	·24	·23	
9	5	3	5	...	1	1	1	20	17	37	·05	·05	·05	10
13	6	6	7	1	2	3	2	29	26	55	·07	·07	·07	
...	...	...	2	1	2	...	...	2	3	5	·06	·10	·08	11
1	1	1	3	...	...	...	1	5	4	9	·29	·22	·26	12
1	...	...	2	1	1	...	...	2	3	5	·11	·16	·14	13
1	1	...	...	...	2	...	1	4	1	5	·31	·09	·21	14
3	2	1	7	2	5	...	2	13	11	24	·16	·14	·15	
3	3	2	10	3	8	1	...	23	17	40	·04	·03	·04	15
6	5	3	17	5	13	1	2	36	28	64	·06	·05	·05	
...	...	...	2	....	1	...	...	1	2	3	·02	·04	·03	16
...	1	1	...	...	...	...	...	...	2	2	...	·13	·06	17
1	...	...	1	...	1	...	...	1	2	3	·17	·37	·27	18
1	1	1	3	...	2	...	...	2	6	8	·03	·09	·06	
5	4	9	2	4	5	2	...	16	29	45	·02	·04	·03	19
6	5	10	5	4	7	2	...	18	35	53	·02	·05	·03	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	2	4	...	1	...	...	...	4	15	19	...	·03	·02	20
														21
5	2	4	...	1	...	...	...	4	15	19	...	·03	·02	
1	1	1	3	3	...	2	...	8	4	12	·51	·25	·38	22
2	...	...	...	...	...	...	...	2	2	4	·23	·23	·23	23
3	1	1	3	3	...	2	...	10	6	16	·41	·24	·33	
5	4	4	6	2	...	2	3	20	10	30	·04	·02	·03	24
8	5	5	9	5	...	4	3	30	16	46	·05	·03	·05	
...	...	...	...	...	1	...	...	...	1	1	...	·02	...	25

APPEN

ANNUAL

Deaths registered from CHOLERA in the Rural Circles and Towns of the

1. Number.	2. District.	3. Name of Rural Circle or Town.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
26	SAHARANPUR.	Saharanpur T., ...	23,854	21,165	45,019	...	...	...	...
27		Deoband T., ...	10,131	9,252	19,383	...	...	...	...
28		Gangoh T., ...	5,728	5,254	10,982	...	...	...	...
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...	...
		Total of Towns, ...	46,263	39,899	86,162	...	...	...	...
30		In the 22 Rural Circles,... ...	438,245	359,375	797,620	1	1	2	...
		Total of District, ...	484,508	399,274	883,782	1	1	2	...
31	MUZAFFARNAGAR.	Kairana T., ...	9,117	8,625	17,742	...	...	...	...
32		Kandhla T., ...	5,799	5,227	11,026	...	...	...	...
33		Muzaffarnagar T., ...	6,105	4,688	10,793	...	...	...	...
		Total of Towns, ...	21,021	18 540	39,561	...	...	...	...
34		In the 25 Rural Circles, ...	354,587	295,934	650,521	...	...	...	...
		Total of District, ...	375,608	314,474	690,082	...	...	...	...
35	MEERUT.	Meerut T., ...	27,383	24,608	51,991	...	...	...	...
36		Hapur T., ...	7,601	6.943	14,544	...	...	...	...
37		Sirdhana T., ...	6,508	5,961	12,469	...	...	...	...
		Total of Towns, ...	41,492	37,512	79,004	...	...	...	...
38		In the 40 Rural Circles, ...	643,912	550,998	1,194,910	...	...	...	...
		Total of District, ...	685,404	588,510	1,273,914	...	...	...	...
39	BULANDSHAHR.	Khurja T., ...	13,770	13,088	26,858	...	...	...	...
40		Sikandrabad T., ...	9,514	8,835	18,349	...	2	1	...
41		Bulandshahr T., ...	7,730	7,082	14,812	...	...	...	...
42		Shikarpur, T.	5,798	5,540	11,338	...	...	...	...
		Total of Towns, ...	36,812	34,545	71,357	...	2	1	...
43		In the 29 Rural Circles, ...	456,870	408,366	865,236	2	1	1	3
		Total of District, ...	493,682	442,911	936,593	2	2	2	3
44	ALIGARH.								
45		Aligarh or Koil T., ...	29,697	26,149	55,846	...	...	2	2
46		Hathras T., ...	16,528	14,372	30,900	...	...	...	...
47		Atrauli T., ...	8,095	7,527	15,622	...	...	...	1
		Sikandra Rao T., ...	5,668	5,146	10,814	...	...	...	...
48		Total of Towns, ...	59,988	53,194	113,182	...	...	2	3
		In the 28 Rural Circles, ...	517,275	442,651	959,926	1	...	...	1
		Total of District, ...	577,263	495,845	1,073,108	1	...	2	4
49	ETAH.								
50		Kasganj T., ...	8,393	7.371	15,764	...	...	...	...
		Soron T., ...	7,093	6,565	13,658	...	...	...	...
51		Total of Towns, ...	15,486	13,936	29,422	...	...	...	...
		In the 18 Rural Circles, ...	367,260	306,803	674,063	2	...	1	...
		Total of District, ...	382,746	320,739	703,485	2	...	1	...
52	MUTTRA.								
53		Muttra T., ...	32,963	30,468	63,431	2	1	1	6
54		Brindaban T., ...	10,965	10,039	21,004	...	...	...	...
		Kosi T., ...	6,568	6,202	12,770	...	...	...	1
55		Total of Towns, ..	50,496	46,709	97,205	2	1	1	7
		In the 27 Rural Circles, ...	430,119	360,031	790,150	...	...	1	5
		Total of District, ...	480,615	406,740	887,355	2	1	2	12

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	...	...	1	...	...	...	1	...	1	·04	...	·02	26
...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
...	...	...	...	...	...	...	...	...	...	...	...	...	...	28
...	...	...	1	...	...	...	...	1	...	1	·15	...	·09	29
...	...	...	1	1	...	...	...	2	...	2	·04	...	·02	
2	...	3	3	2	1	...	...	7	8	15	·01	·02	·02	
2	...	3	4	3	1	...	...	9	8	17	·01	·02	·02	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
...	...	...	...	2	...	...	...	2	...	2	·32	...	·18	33
...	...	...	...	2	...	...	...	2	...	2	·09	...	·05	34
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	2	...	...	...	2	...	2	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
1	...	...	...	...	...	...	...	1	...	1	·15	...	·08	37
1	...	1	...	...	...	...	...	1	...	1	·02	...	·01	
...	1	1	...	...	...	...	2	4	...	4	...	...	...	38
1	1	1	...	...	...	...	2	5	...	5	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
...	1	...	...	3	...	...	...	2	5	7	·25	·56	·38	40
...	1	...	...	...	...	...	...	1	...	1	·12	...	·06	41
...	...	...	...	...	...	...	...	...	...	...	...	...	...	42
...	2	...	...	3	...	...	...	3	5	8	·08	·14	·11	
6	2	3	...	...	1	...	...	10	9	19	·02	·02	·02	43
6	4	3	...	3	1	...	1	13	14	27	·02	·03	·02	
1	1	2	1	2	1	...	3	9	6	15	·30	·22	·26	44
...	2	2	1	...	2	...	...	5	2	7	·30	·13	·22	45
1	...	...	...	...	...	...	...	2	...	2	·24	...	·12	46
...	...	...	...	...	...	...	...	...	...	...	...	...	...	47
2	3	4	2	2	3	...	3	16	8	24	·26	·15	·21	
2	4	4	17	6	...	...	3	19	19	38	·03	·04	·04	48
4	7	8	19	8	3	...	6	35	27	62	·06	·05	·05	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	49
...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
1	...	1	1	...	...	...	...	4	2	6	·01	...	...	51
1	...	1	1	...	...	...	...	4	2	6	·01	...	...	
2	1	...	1	2	3	1	3	13	10	23	·39	·32	·36	52
1	...	...	...	...	...	1	...	1	1	2	·09	·09	·09	53
...	...	...	...	...	...	...	...	...	1	1	...	·16	·07	54
3	1	...	1	2	3	2	3	14	12	26	·27	·25	·26	
1	1	3	6	1	1	1	1	14	7	21	·03	·01	·02	55
4	2	3	7	3	4	3	4	28	19	47	·05	·04	·05	

APPEN

ANNUAL

Deaths registered from CHOLERA in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
56	FARUKHABAD.	Farukhabad T., ...	38,249	37,702	75,951	...	...	...	...
57		Kanauj T., ...	8,772	8,321	17,093	...	...	...	...
58		Kaimgunj T., ...	5,287	5,036	10,323	...	...	...	...
		Total of Towns, ...	52,308	51,059	103,367	...	...	...	...
59		In the 26 Rural Circles, ...	447,414	367,967	815,381	4	...	1	15
		Total of District, ...	499,722	419,026	918,748	4	...	1	15
60	MAINPURI.	Mainpuri T., ...	9,723	8,878	18,601	...	...	...	...
61		Shikohabad T., ...	5,367	4,702	10,069	...	...	...	...
		Total of Towns, ...	15,090	13,580	28,670	...	...	...	...
62		In the 17 Rural Circles, ...	411,865	325,248	737,113	...	...	...	1
		Total of District, ...	426,955	338,828	765,783	...	...	...	1
63	AGRA.	Agra T., ...	80,804	69,873	150,677	...	...	1	...
64		Jalesar T., ...	7,640	7,262	14,902	...	...	...	...
65		Firozabad T., ...	7,058	6,730	13,788	...	...	...	...
		Total of Towns, ...	95,502	83,865	179,367	...	...	1	...
66		In the 35 Rural Circles, ...	494,060	420,757	914,817	1	...	...	11
		Total of District ...	589,562	504,622	1,094,184	1	...	1	11
67	ETAWAH.	Etawah T., ...	16,344	14,205	30,549	2	...	...	...
68		In the 20 Rural Circles, ...	353,584	284,448	638,032	1	...	3	4
		Total of District, ...	369,928	298,653	668,581	3	...	3	4
69	CAWNPORE.	Cawnpore T., ...	54,043	44,433	98,476	...	...	...	...
70		In the 26 Rural Circles, ...	565,075	491,888	1,056,963	5	...	1	...
		Total of District, ...	619,118	536,321	1,155,439	5	...	1	...
71	FATEHPUR.	Fatehpur T., ...	9,605	9,459	19,064	...	...	...	...
72		In the 22 Rural Circles,... ...	335,928	308,823	644,751	1	...	1	...
		Total of District, ...	345,533	318,282	663,815	1	...	1	...
73	JAUNPUR.	Jaunpur T., ...	17,748	17,255	35,003	...	...	...	...
74		In the 18 Rural Circles,... ...	527,952	462,914	990,866	...	1	...	2
		Total of District, ...	545,700	480,169	1,025,869	...	1	...	2
75	HAMIR-PUR.	Rath T., ...	7,094	7,421	14,515	...	...	...	...
76		In the 29 Rural Circles,... ...	269,102	245,520	514,622	...	...	...	...
		Total of District, ...	276,196	252,941	529,137	...	...	...	...
77	BANDA.	Banda T., ...	13,612	13,030	26,642	...	...	...	...
78		In the 28 Rural Circles,... ...	346,153	324,816	670,969	...	...	3	...
		Total of District, ...	359,765	337,846	697,611	...	...	3	...
79	ALLAHABAD.	Allahabad T., ...	81,765	64,099	145,864	...	...	...	...
80		In the 33 Rural Circles,... ...	633,345	615,036	1,248,381	...	...	1	5
		Total of District, ...	715,110	679,135	1,394,245	...	...	1	5

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	...	3	1	...	...	...	...	4	4	...	·10	·05	56
...	...	...	...	...	...	...	...	...	...	...	...	...	...	57
...	...	...	...	...	...	...	...	...	...	...	...	...	...	58
...	...	...	3	1	...	...	...	...	4	4	...	·07	·03	
13	2	6	2	1	3	1	2	22	28	50	·04	·07	·06	59
13	2	6	5	2	3	1	2	22	32	54	·04	·06	·05	
...	3	...	...	...	...	...	...	2	1	3	·20	·11	·16	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	61
...	3	...	...	...	...	...	...	2	1	3	·13	·07	·10	
...	...	2	...	...	...	...	...	2	1	3	...	...	...	62
...	3	2	...	...	...	...	...	4	2	6	...	...	...	
1	2	1	1	9	8	...	...	22	1	23	·27	·01	·15	63
...	...	...	...	...	...	...	...	...	...	...	...	...	...	64
...	...	...	...	...	...	...	...	...	...	...	...	...	...	65
1	2	1	1	9	8	...	...	22	1	23	·23	·01	·12	
1	...	3	3	2	7	...	...	21	7	28	·04	·01	·03	66
2	2	4	4	11	15	...	...	43	8	51	·07	·01	·04	
...	2	...	...	...	...	...	...	3	1	4	·18	·07	·13	67
1	...	1	3	1	1	...	...	4	11	15	·01	·03	·02	68
1	2	1	3	1	1	...	...	7	12	19	·01	·04	·03	
...	1	...	...	...	...	...	...	1	...	1	·01	...	·01	69
2	5	3	6	...	...	...	...	4	18	22	...	·03	·02	70
2	6	3	6	...	...	...	...	5	18	23	...	·03	·02	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	71
1	...	...	1	...	...	...	...	...	4	4	...	·01	...	72
1	...	...	1	...	...	...	...	...	4	4	...	·01	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	73
3	5	...	2	...	1	1	...	5	10	15	...	·02	·01	74
3	5	...	2	...	1	1	...	5	10	15	...	·02	·01	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	75
...	1	...	...	...	...	...	...	...	1	1	...	...	...	76
...	1	...	...	...	...	...	...	...	1	1	...	...	...	
...	1	...	...	...	...	...	...	1	...	1	·07	...	·04	77
...	...	3	...	...	...	...	...	4	2	6	·01	...	...	78
...	1	3	...	...	...	...	...	5	2	7	·01	...	·01	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	79
...	3	...	1	1	2	1	1	7	8	15	·01	·01	·01	80
...	3	...	1	1	2	1	1	7	8	15	...	·01	·01	

APPEN

ANNUAL

Deaths registered from CHOLERA in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circle or Town.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
81	Gorakhpur.	Gorakhpur T., ...	27,571	24,062	51,633	...	...	...	...
82		In the 35 Rural Circles, ...	1,050,501	917,216	19,67,717	1	1	...	1
		Total of District, ...	1,078,072	941,278	2,019,350	1	1	...	1
83	Basti.	Total of District, containing 27 Circles,	784,691	688 303	1,472,994	...	...	...	...
84	Azamgarh.	Azamgarh T., ...	8,916	7,064	15,980	...	...	...	...
85		Mau T., ...	5,794	5,521	11,315	...	...	...	...
		Total of Towns, ...	14,710	12,585	27,295	...	...	...	...
86		In the 27 Rural Circles, ...	811,435	692,680	1,504,115	...	1	3	2
		Total of District, ...	826,145	705,265	1,531,410	...	1	3	2
87	Ghazipur.	Ghazipur T., ...	19,889	19,619	39,508	1	...	...	...
88		In the 27 Rural Circles, ...	676,683	629,210	1,305,893	1	...	...	3
		Total of District, ...	696,572	648,829	1,345,401	2	...	...	3
89	Benares.	Benares T., ...	96,814	90,527	187,341	1	1	...	3
90		Ramnagar T., ...	6,256	5,697	11,953	...	...	...	1
		Total of Towns, ...	103,070	96,224	199,294	1	1	...	4
91		In the 14 Rural Circles, ...	303,274	291,131	594,405	2	2	2	2
		Total of District, ...	406,344	387,355	793,699	3	3	2	6
92	Mirzapur.	Mirzapur T., ...	39,814	37,415	77,229	...	...	1	...
93		Chunar T., ...	5,976	6,313	12,289	...	...	...	...
		Total of Towns, ...	45,790	43,728	89,518	...	...	1	...
94		In the 22 Rural Circles, ...	474,706	451,069	925,775	...	...	1	2
		Total of District, ...	520,496	494,797	1,015,293	...	...	2	2
95	Jalaun.	Kalpi T., ...	8,021	7,549	15,570	...	...	...	...
96		Kunch T., ...	7,309	7,139	14,448	...	...	...	...
97		Jalaun T., ...	5,309	4,888	10,197	...	...	...	...
		Total of Towns, ...	20,639	19,576	40,215	...	...	...	...
98		In the 21 Rural Circles, ...	195,968	168,201	364,169	1	...	...	...
		Total of District, ...	216,607	187,777	404,384	1	...	...	...
99	Jhansi.	Mau T., ...	8,205	8,223	16,428	...	...	...	...
100		In the 24 Rural Circles, ...	159,314	141,993	301,307	...	...	...	...
		Total of District, ...	167,519	150,216	317,735	...	...	...	...
101	Lalitpur.	Total of District containing 20 Circles,	111,625	101,003	212,628	...	...	...	...
		Grand Total for the Province, ...	16,406,833	14,362,223	30,769,056	35	19	41	97

DIX F.

FORM No. VI.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	...	...	53	72	28	1	79	70	149	2·86	2·90	2·88	81
...	...	12	125	1,143	2,224	329	3	2,154	1,685	3,839	2·05	1·83	1·95	82
...	...	12	125	1,196	2,296	352	4	2,233	1,755	3,988	2·07	1·86	1·97	
2	...	5	36	82	467	337	35	543	421	964	·69	·61	·65	83
...	...	...	...	...	...	...	...	...	...	...	...	...	...	84
...	...	...	3	...	...	2	...	...	5	5	...	·90	·44	85
...	...	...	3	...	...	2	...	...	5	5	...	·39	·18	
24	65	13	56	140	37	9	1	208	143	351	·25	·20	·23	86
24	65	13	59	140	37	11	1	208	148	356	·25	·20	·23	
...	1	...	...	15	4	2	...	16	7	23	·80	·35	·58	87
5	6	5	37	23	14	8	...	44	59	103	·06	·09	·07	88
6	7	5	37	38	18	10	...	60	66	126	·08	·10	·09	
35	14	4	5	7	16	8	4	64	34	98	·66	·37	·52	89
1	1	...	3	6	...	...	3	6	9	15	·95	1·54	1·25	90
36	15	4	8	13	16	8	7	70	43	113	·67	·44	·56	
22	31	5	14	27	22	2	...	79	59	138	·26	·20	·23	91
65	46	9	22	40	38	10	7	149	102	251	·36	0·26	·31	
2	2	...	1	...	...	...	...	7	6	13	·17	·15	·16	92
...	1	5	6	...	...	...	...	7	5	12	·16	·79	·97	93
2	10	5	7	...	...	...	...	14	11	25	·30	·25	·28	
12	46	8	2	13	...	...	...	53	31	84	·11	·06	·09	94
14	56	13	9	13	...	...	...	67	42	109	·12	·08	·10	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	95
...	...	...	...	...	...	...	...	...	...	...	...	...	...	96
...	...	...	...	...	...	...	...	...	...	...	...	...	...	97
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	1	...	...	...	...	...	...	1	1	2	...	...	...	98
...	1	...	...	...	...	...	...	1	1	2	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	99
...	...	...	...	...	...	...	...	...	...	...	...	...	...	100
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	101
190	237	123	372	1,559	2,919	736	70	3,572	2,824	6,399	0·21	0·19	0·20	

APPEN
ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns of

1. Number.	2. District.	3. Name of Rural Circles or Towns.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
1	KUMAUN.	Total of District containing 8 Circles, ...	231,146	201,742	432,888	...	1	4	3
2	GARHWAL.	Total of District containing 12 Circles, ...	155,745	154,537	310,282	24	2	2	1
3	TARAI.	Kashipur T., ...	6,783	6,438	13,221	...	...	...	...
4	TARAI.	In the 9 Rural Circles, ...	95,790	76,636	172,426	11	11	9	18
	TARAI.	Total of District, ...	102,573	83,074	185,647	11	11	9	18
5	BIJNOR.	Nagina T., ...	9,981	9,715	19,696	...	...	...	1
6	BIJNOR.	Najibabad T., ...	10,091	9,565	19,656	1	...	1	...
7	BIJNOR.	Bijnor T., ...	7,071	5,995	13,066	...	...	...	...
8	BIJNOR.	Sherkot T., ...	6,353	6,233	12,586	...	...	2	3
9	BIJNOR.	Chandpur T., ...	6,170	5,863	12,033	1	3	1	10
	BIJNOR.	Total of Towns, ...	39,666	37,371	77,037	2	3	4	14
10	BIJNOR.	In the 27 Rural Circles, ...	355,729	304,386	660,115	80	82	107	252
	BIJNOR.	Total of District, ...	395,395	341,757	737,152	82	85	111	266
11	MORADABD.	Moradabad T., ...	30,664	29,202	59,866	...	...	1	9
12	MORADABD.	Sambhal T., ...	17,095	17,544	34,639	18	6	15	23
13	MORADABD.	Amroha T., ...	16,827	17,952	34,779	5	12	37	43
14	MORADABD.	Chandausi T., ...	12,561	10,979	23,540	...	...	3	4
	MORADABD.	Total of Towns, ...	77,147	75,677	152,824	23	18	56	79
15	MORADABD.	In the 22 Rural Circles, ...	519,629	449,678	969,307	205	178	304	441
	MORADABD.	Total of District, ...	596,776	525,355	1,122,131	228	196	360	520
16	BAREILLY.	Bareilly T., ...	46,269	44,422	90,691	23	34	30	55
17	BAREILLY.	Pilibhit T., ...	15,138	14,702	29,840	...	1	1	1
18	BAREILLY.	Aonla T., ...	5,840	5,313	11,153	14	3	21	11
	BAREILLY.	Total of Towns, ...	67,247	64,437	131,684	37	38	52	67
19	BAREILLY.	In the 27 Rural Circles, ...	739,666	635,451	1,375,117	73	89	167	208
	BAREILLY.	Total of District, ...	806,913	699,888	1,506,801	110	127	219	275
20	SHAHJAHANPUR.	Shahjahanpur T., ...	40,241	39,246	79,487	3	1	4	10
21	SHAHJAHANPUR.	In the 23 Rural Circles, ...	470,895	399,089	869,984	171	185	274	462
	SHAHJAHANPUR.	Total of District, ...	511,136	438,335	949,471	174	186	278	472
22	BUDAUN.	Budaun T., ...	15,533	15,694	31,227	...	1	1	2
23	BUDAUN.	Saheswan T., ...	8,616	8,445	17,061	1	1	1	6
	BUDAUN.	Total of Towns, ...	24,149	24,139	48,288	1	2	2	8
24	BUDAUN.	In the 18 Rural Circles, ...	479,470	406,590	886,060	138	190	178	236
	BUDAUN.	Total of District, ...	503,619	430,729	934,348	139	192	180	244
25	DEHRA DUN.	Total of District containing 6 Circles, ...	68,044	47,667	115,711	...	...	...	...

DIX G.

FORM No. VII.

the North-Western Provinces during each month of the year 1874.

5.								6			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	4	2	1	...	...	1	...	5	11	16	·02	·05	·04	1
1	1	...	...	...	...	...	...	20	11	31	·13	·07	·10	2
2	...	1	...	...	...	...	1	2	2	4	·29	·31	·30	3
28	36	14	8	5	...	1	7	72	76	148	·75	·19	·85	4
30	36	15	8	5	...	1	8	74	78	152	·72	·94	·81	
2	7	1	1	...	...	...	...	4	8	12	·40	·82	·60	5
2	3	1	...	...	...	...	...	4	4	8	·39	·42	·40	6
7	4	4	1	...	...	...	...	10	6	16	1·41	1·00	1·22	7
4	6	2	1	...	1	...	7	16	10	26	2·52	1·60	2·06	8
10	10	2	1	...	...	...	...	14	24	38	2·37	4·09	3·15	9
25	30	10	4	...	1	...	7	48	52	100	1·21	1·39	1·30	
455	446	216	103	15	23	26	64	977	892	1,869	2·74	2·93	2·83	10
480	476	226	107	15	24	26	71	1,025	944	1,969	2·56	2·76	2·67	
4	7	1	...	...	1	2	8	18	15	33	·58	·51	·55	11
50	14	5	5	3	...	...	...	66	73	139	3·86	4·16	4·01	12
71	55	13	1	...	...	1	...	127	111	238	7·54	6·18	6·84	13
3	9	9	...	1	2	...	...	19	12	31	1·51	1·09	1·31	14
128	85	28	6	4	3	3	8	230	211	441	2·98	2·79	2·88	
685	502	273	130	51	41	23	50	1,468	1,415	2,883	2·52	3·14	2·97	15
813	587	301	136	55	44	26	58	1,698	1,626	3,324	2·84	3·09	2·96	
79	33	17	2	...	1	...	...	126	148	274	2·72	3·33	3·02	16
1	4	...	...	...	...	...	...	4	4	8	·26	·27	·26	17
28	15	12	1	1	...	...	3	70	39	109	11·98	7·34	9·77	18
108	52	29	3	1	1	...	3	209	191	391	2·97	2·96	2·96	
282	248	103	94	50	33	17	41	765	640	1,405	1·03	1·00	1·02	19
390	300	132	97	51	34	17	44	965	831	1,796	1·19	1·18	1·19	
39	42	26	3	...	...	...	1	59	70	129	1·46	1·78	1·62	20
516	411	197	109	42	18	32	53	1,252	1,218	2,470	2·66	3·05	2·83	21
555	453	223	112	42	18	32	54	1,311	1,288	2,599	2·56	2·93	2·73	
4	3	3	5	...	...	...	...	8	11	19	·51	·70	·60	22
2	1	2	...	...	...	...	...	6	8	14	·69	·94	·82	23
6	4	5	5	...	...	...	...	14	19	33	·58	·79	·68	
316	195	135	52	18	12	11	15	789	707	1,496	1·64	1·73	1·68	24
322	199	140	57	18	12	11	15	803	726	1,529	1·59	1·68	1·63	
...	...	1	...	...	...	...	...	1	...	1	·01	...	...	25

APPEN

ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns of

1.	2.	3.	4.						
Number.	District.	Name of Rural Circles or Towns.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
26	SAHARANPUR.	Saharanpur T., ...	23,854	21,165	45,019	...	...	1	4
27		Deoband T., ...	10,131	9,252	19,383	...	2	1	5
28		Gungoh T., ...	5,728	5,254	10,982	...	1	2	...
29		Roorkee T., ...	6,550	4,228	10,778	...	...	...	...
		Total of Towns, ...	46,263	39,899	86,162	...	3	4	9
30		In the 22 Rural Circles, ...	438,245	359,375	797,620	117	120	111	126
		Total of District, ...	484,508	399,274	883,782	117	123	115	135
31	MUZAFFARNAGAR.	Kairana T., ...	9,117	8,625	17,742	...	...	1	...
32		Kandhla T., ...	5,799	5,227	11,026	...	...	...	...
33		Muzaffarnagar T., ...	6,105	4,688	10,793	...	...	...	...
		Total of Towns, ...	21,021	18,540	39,561	...	...	1	...
34		In the 25 Rural Circles, ...	354,587	295,934	650,521	10	59	57	53
		Total of District, ...	375,608	314,474	690 082	70	59	58	53
35	MEERUT.	Meerut T., ...	27,383	24,608	51,991	2	2	2	4
36		Hapur T., ...	7,601	6,943	14,544	...	...	...	...
37		Sardhana T., ...	6,508	5,961	12,469	...	...	...	...
		Total of Towns, ...	41,492	37,512	79,004	2	2	2	4
38		In the 40 Rural Circles, ...	643,912	550,998	1,194,910	55	73	129	176
		Total of District, ...	685,404	588,510	1,273,914	57	75	131	180
39	BULANDSHAHR.	Khurja T., ...	13,770	13,088	26,858	...	...	...	1
40		Sikandarabad T., ...	9,514	8,835	18,349	2	5	11	5
41		Bulandshahr T., ...	7,730	7,082	14,812	...	...	...	2
42		Shikarpur T., ...	5,798	5,540	11,338	...	...	1	...
		Total of Towns, ...	36,812	34,545	71,357	2	5	12	8
43		In the 29 Rural Circles, ...	456,870	408,366	865,236	77	95	146	188
		Total of District, ...	493,682	442,911	936,593	79	100	158	196
44	ALIGARH.	Aligarh or Koil T., ...	29,697	26,149	55,846	...	...	4	6
45		Hathras T., ...	16 528	14,372	30,900	...	1	4	7
46		Atrauli T., ...	8,095	7,527	15,622	...	...	2	1
47		Sikandra Rao T., ...	5,568	5,146	10,814	...	3	...	...
		Total of Towns, ...	59,988	53,194	113,182	...	4	10	14
48		In the 28 Rural Circles, ...	517,275	442,651	959,926	63	76	130	154
		Total of District, ...	577,263	495,845	1,073,108	63	80	140	168
49	ETAH.	Kasganj T., ...	8,393	7,371	15,764	...	...	...	...
50		Soron T., ...	7,093	6,565	13,658	...	...	...	1
		Total of Towns, ...	15,486	13,936	29,422	...	...	...	1
51		In the 18 Rural Circles, ...	367,260	306,803	674,063	142	125	243	213
		Total of District, ...	382,746	320,739	703,485	142	125	243	214
52	MUTTRA.	Muttra T., ...	32,963	30,468	63,431	...	1	2	5
53		Brindraban T., ...	10,965	10,039	21,004	...	...	1	2
54		Kosi T., ...	6,568	6,202	12,770	...	1	...	...
		Total of Towns, ...	50,496	46,709	97,205	...	2	3	7
55		In the 27 Rural Circles, ...	430,119	360,031	790,150	73	65	66	73
		Total of District, ...	480,615	406,740	887,355	73	67	69	80

DIX G.

FORM No. VII.

the North-Western Provinces during each month of the year 1874– (continued).

5.								6.			7.			8.
May.	June.	July.	August.	September.	October.	November.	December.	*Total.* Male.	Female.	Total.	*Ratio of deaths per 1,000 of population.* Male.	Female.	Total.	Number.
10	15	3	6	1	1	...	1	29	13	42	1·22	·61	·93	26
2	4	2	3	1	1	...	1	11	11	22	1·08	1·19	1·13	27
3	1	1	4	...	1	1	...	4	10	14	·69	1·90	1·27	28
...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
15	20	6	13	2	3	1	2	44	34	78	·95	·85	·90	
347	321	151	149	97	71	49	50	911	798	1,709	2·07	2·22	2·14	30
362	341	157	162	99	74	50	52	955	832	1,787	1·97	2·08	2·02	
...	...	...	...	3	...	...	...	2	2	4	·21	·23	·22	31
11	11	18	6	2	1	...	...	25	24	49	4·31	4·59	4·44	32
...	...	3	...	...	1	...	...	3	1	4	·49	·21	·37	33
11	11	21	6	5	2	...	...	30	27	57	1·42	1·45	1·44	
137	160	122	60	29	34	21	18	428	392	820	1·20	1·32	1·25	34
148	171	143	66	34	36	21	18	458	419	877	1·21	1·33	1·27	
16	21	9	...	...	...	...	...	27	29	56	·98	1·17	1·07	35
...	...	...	...	...	...	1	...	1	...	1	·13	...	·06	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
16	21	9	...	...	1	...	...	28	29	57	·67	·77	·72	
316	143	49	20	2	2	...	1	523	443	966	·81	·80	·81	38
332	164	58	20	2	3	...	1	551	472	1,023	·80	·80	·80	
3	...	2	...	...	...	...	...	2	4	6	·14	·30	·22	39
4	7	...	...	...	...	...	...	19	15	34	1·99	1·59	1·85	40
2	...	1	...	...	...	...	...	3	2	5	·38	·28	·33	41
...	...	...	...	...	...	...	...	...	1	1	...	·18	·08	42
9	7	3	...	...	...	...	...	24	22	46	·65	·63	·64	
219	185	59	19	6	7	5	11	523	494	1,017	1·14	1·20	1·17	43
228	192	62	19	6	7	5	11	547	516	1,063	1·10	1·16	1·13	
10	4	1	1	2	...	...	3	13	18	31	·43	·68	·55	44
18	17	4	1	...	...	...	1	35	18	53	2·11	1·25	1·71	45
1	1	...	...	...	...	...	...	2	3	5	·24	·40	·32	46
...	2	2	1	1	...	...	...	3	6	9	·53	1·16	·83	47
29	24	7	3	3	...	...	4	53	45	98	·88	·84	·86	
194	196	133	113	33	27	21	33	582	591	1,173	1·12	1·33	1·22	48
223	220	140	116	36	27	21	37	635	636	1,271	1·10	1·28	1·18	
...	...	...	...	...	1	...	...	...	1	1	...	·13	·06	49
2	...	...	...	1	...	...	...	2	2	4	·28	·30	·29	50
2	...	...	...	1	1	...	...	2	3	5	·13	·21	·17	
251	200	82	55	13	5	7	7	746	597	1,343	2·03	1·94	1·99	51
253	200	82	55	14	6	7	7	748	600	1,348	1·95	1·87	1·91	
16	14	5	1	...	...	...	...	20	24	44	·60	·78	·69	52
2	1	...	...	1	...	...	...	4	3	7	·26	·29	·33	53
...	1	...	...	...	...	...	...	2	...	2	·30	...	·15	54
18	16	5	1	1	...	...	...	26	27	53	·51	·58	·54	
89	96	38	34	5	5	2	12	307	251	558	·71	·69	·70	55
107	112	43	35	6	5	2	12	333	278	611	·69	·68	·69	

APPEN
ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns of

1. Number	2. District.	3. Name of Rural Circles or Towns.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
56	FARUKHABAD.	Farukhabad T., ...	38,249	37,702	75,951	...	...	...	...
57		Kanauj T., ...	8,772	8,321	17,093	...	...	...	...
58		Kaimganj T., ...	5,287	5,036	10,323	...	...	...	...
		Total of Towns, ...	52,308	51,059	103,367	...	...	...	...
59		In the 26 Rural Circles, ...	447,414	367,967	815,381	230	298	532	573
		Total of District, ...	499,722	419,026	918,748	230	298	532	573
60	MAINPURI.	Mainpuri T., ...	9,723	8,878	18,601	9	25	27	29
61		Shikohabad T., ...	5,367	4,702	10,069	...	...	...	...
		Total of Towns, ...	15,090	13,580	28,670	9	25	27	29
62		In the 17 Rural Circles, ...	411,865	325,248	737,113	171	215	384	469
		Total of District, ...	426,955	338,828	765,783	180	240	411	498
63	AGRA.	Agra T., ...	80,804	69,873	150,677	4	3	5	8
64		Jalesar T., ...	7,640	7,262	14,902	...	...	...	...
65		Ferozabad T., ...	7,058	6,730	13,788	...	...	...	...
		Total of Towns, ...	95,502	83,865	179,367	4	3	5	8
66		In the 35 Rural Circles, ...	494,060	420,757	914,817	64	95	243	241
		Total of District, ...	589,562	504,622	1,094,184	68	98	248	249
67	ETAWAH.	Etawah T., ...	16,344	14,205	30,549	33	20	34	20
68		In the 20 Rural Circles, ...	353,584	284,448	638,032	278	384	734	1,056
		Total of District, ...	369,928	298,653	668,581	311	404	768	1,076
69	CAWNPORE.	Cawnpore T., ...	54,043	44,433	98,476	3	3	3	4
70		In the 26 Rural Circles, ...	565,075	491,888	1,056,963	686	776	1,402	1,434
		Total of District, ...	619,118	536,321	1,155,439	689	779	1,405	1,438
71	FATEHPUR.	Fatehpur T., ...	9,605	9,459	19,064	1	...	...	...
72		In the 22 Rural Circles, ...	335,928	308,823	644,751	90	87	259	546
		Total of District, ...	345,533	318,282	663,815	91	87	259	546
73	JAUNPUR.	Jaunpur T., ...	17,748	17,255	35,003	2	1	37	51
74		In the 18 Rural Circles, ...	527,952	462,914	990,866	149	200	396	588
		Total of District, ...	545,700	480,169	1,025,869	151	201	433	639
75	HAMIRPUR.	Rath T., ...	7,094	7,421	14,515	...	...	...	...
76		In the 29 Rural Circles, ...	269,102	245,520	514,622	16	26	102	136
		Total of District, ...	276,196	252,941	529,137	16	26	102	136
77	BANDA.	Banda T., ...	13,612	13,030	26,642	...	...	3	9
78		In the 28 Rural Circles, ...	346,153	324,816	670,969	124	191	367	468
		Total of District, ...	359,765	337,846	697,611	124	191	370	477
79	ALLAHABAD.	Allahabad T., ...	81,765	64,099	145,864	11	8	8	30
80		In the 33 Rural Circles, ...	633,345	615,036	1,248,381	309	426	1,095	1,381
		Total of District, ...	715,110	679,135	1,394,245	320	434	1,103	1,411

DIX G.

FORM No. VII.

the North-Western Provinces during each month of the year 1874—(continued).

5.								6.			7.			8.
								Total.			*Ratio of deaths per* 1,000 *of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	**Total.**	Male.	Female.	**Total.**	Number.
...	...	7	...	1	...	...	...	4	4	8	·10	·10	·10	56
...	...	...	...	...	...	...	...	...	...	...	...	...	...	57
...	...	2	2	...	...	1	...	4	1	5	·75	·19	·48	58
...	..	9	2	1	...	1	...	8	5	13	·15	·10	·12	
601	537	275	111	45	47	20	23	1,891	1,401	3,292	4·22	3·80	4·03	59
601	537	284	113	46	47	21	23	1,899	1,406	3,305	3·80	3·85	3·59	
18	7	4	...	1	...	...	...	56	64	120	5·76	7·21	6·45	60
1	...	1	...	...	...	...	...	1	1	2	·18	·21	·19	61
19	7	5	...	1	...	...	...	57	65	122	3·77	4·78	4·25	
758	585	325	101	44	4	7	9	1,746	1,326	3,072	4·24	4·08	4·16	62
777	592	330	101	45	4	7	9	1,803	1,391	3,194	4·22	4·10	4·17	
8	12	5	...	...	1	...	5	22	29	51	·27	·41	·33	63
1	1	2	...	...	...	...	...	2	2	4	·26	·27	·27	64
...	2	...	...	...	...	...	...	2	...	2	·28	...	·14	65
9	15	7	...	...	1	...	5	26	31	57	·27	·37	·31	
242	211	85	26	16	5	6	21	716	539	1,255	1·45	1·28	1·37	66
251	226	92	26	16	6	6	26	742	570	1,312	1·26	1·13	1·20	
6	2	1	...	...	...	...	1	54	63	117	3·30	4·43	3·83	67
1,046	710	353	114	21	10	11	5	2,605	2,119	4,724	7·37	7·45	7·40	68
1,052	712	354	114	21	10	11	6	2,659	2,182	4,841	7·18	7·30	7·24	
8	4	2	2	1	2	4	2	20	18	38	·37	·40	·38	69
1,482	984	357	135	35	22	24	53	4,047	3,343	7,390	7·16	6·79	6·99	70
1,490	988	359	137	36	24	28	55	4,067	3,361	7,428	6·56	6·26	6·42	
2	1	...	1	...	...	...	...	1	4	5	·14	·42	·26	71
818	702	357	148	35	5	4	11	1,641	1,421	3,062	4·88	4·60	4·74	72
820	703	357	149	35	5	4	11	1,642	1,425	3,067	4·75	4·47	4·62	
61	20	4	4	...	...	...	2	102	80	182	5·74	4·63	5·19	73
718	464	307	151	38	38	6	18	1,625	1,448	3,073	3·07	3·12	3·10	74
779	484	311	155	38	38	6	20	1,727	1,528	3,255	3·16	3·16	3·17	
2	1	...	...	...	...	...	...	3	...	3	·42	...	·20	75
215	278	217	96	19	15	24	52	696	500	1,196	2·58	2·04	2·32	76
217	279	217	96	19	15	24	52	699	500	1,199	2·53	2·18	2·26	
20	21	5	3	...	...	1	...	33	29	62	2·42	2·22	2·32	77
516	367	211	125	31	39	104	235	1,485	1,293	2,778	4·29	3·97	4·14	78
536	388	216	128	31	39	105	235	1,518	1,322	2,840	4·22	4·20	4·07	
17	8	...	1	1	...	...	...	44	40	84	·53	·62	·57	79
1,673	911	476	160	41	17	17	18	3,511	3,008	6,519	5·54	4·89	5·22	80
1,690	919	476	161	42	17	17	18	3,555	3,048	6,603	4·97	4·48	4·73	

APPEN
ANNUAL

Deaths registered from SMALL-POX in the Rural Circles and Towns of

1.	2.	3.	4.						
Number.	District.	Name of Rural Circles or Towns.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	**Total.**				
81	GORAKHPUR.	Gorakhpur T., ...	27,571	24,062	51,633	...	...	...	7
82		In the 35 Rural Circles, ...	1,053,501	917,216	1,967,717	654	910	1,948	3,243
		Total of District, ...	1,078,072	941,278	2,019,350	654	910	1,948	3,250
83	BASTI.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994	159	142	331	533
84	AZAMGARH.	Azamgarh T, ...	8,916	7,064	15,980	1	...	1	9
85		Mau T., ...	5,794	5,521	11,315	...	1	31	29
		Total of Towns, ...	14,710	12,585	27,295	1	1	32	38
86		In the 27 Rural Circles, ...	811,435	692,680	1,504,115	537	880	1,716	2,911
		Total of District, ...	826,145	705,265	1,531,410	538	881	1,748	2,949
87	GHAZIPUR.	Ghazipur T., ...	19,889	19,619	39,508	...	3	9	10
88		In the 27 Rural Circles, ...	676,683	629,210	1,305,893	209	268	819	1,624
		Total of District, ...	696,572	648,829	1,345,401	209	271	828	1,634
89	BENARES.	Benares T., ...	96,814	90,527	187,341	2	1	6	2
90		Ramnagar T., ...	6,256	5,697	11,953	...	...	...	1
		Total of Towns, ...	103,070	96,224	199,294	2	1	6	3
91		In the 14 Rural Circles, ...	303,274	291,131	594,405	33	32	53	91
		Total of District, ...	406,344	387,355	793,699	35	33	59	94
92	MIRZAPUR.	Mirzapur T., ...	39,814	37,415	77,229	8	1	4	7
93		Chunar T., ...	5,976	6,313	12,289	1	2	3	9
		Total of Towns, ...	45,790	43,728	89,518	9	3	7	16
94		In the 23 Rural Circles, ...	474,706	451,069	925,775	105	135	230	428
		Total of District, ...	520,496	494,797	1,015,293	114	138	237	444
95	JALAUN.	Kalpi T., ...	8,021	7,549	15,570	3	...	1	3
96		Kunch, T, ...	7,309	7,139	14,448	...	...	4	2
97		Jalaun T., ...	5,309	4,888	10,197	...	1	4	1
		Total of Towns, ...	20,639	19,576	40,215	3	1	9	6
98		In the 21 Rural Circles, ...	195,968	168,201	364,169	106	134	251	283
		Total of District, ...	216,607	187,777	404,384	109	135	260	289
99	JHANSI.	Mau T., ...	8,205	8,223	16,428	...	...	...	...
100		In the 24 Rural Circles, ...	159,314	141,993	301,307	12	16	43	50
		Total of District, ...	167,519	150,216	317,735	12	16	43	50
101	LALITPUR.	Total of district containing 20 circles, ...	111,625	101,003	212,628	2	1	3	7
		GRAND TOTAL FOR THE PROVINCE, ...	16,406,833	14,362,223	30,769,056	5,381	6,714	13,165	19,120

D'IX G.

FORM, No. VII.

the North-Western Provinces during each month of the year 1874—(concluded).

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	**Total**	Male.	Female.	**Total**	Number.
7	4	1	...	1	...	...	...	10	10	20	·36	·41	·38	81
3,154	1,962	1,100	502	156	72	44	30	7,899	5,816	13,775	7·52	6·40	7·00	82
3,161	1,966	1,101	502	157	72	44	30	7,909	5,886	13,795	7·33	6·25	6·83	
439	269	129	68	24	13	12	13	1,161	971	2,132	1·48	1·41	1·44	83
8	3	1	2	2	...	...	...	13	14	27	1·45	1·98	1·69	84
26	21	56	6	...	1	...	...	80	91	171	13·80	16·48	15·11	85
34	24	57	8	2	1	...	...	93	105	198	6·32	8·34	7·25	
1,821	884	325	179	54	11	19	35	5,214	4,158	9,372	6·42	6·00	6·23	86
1,855	908	382	187	56	12	19	35	5,307	4,263	9,570	6·42	6·04	6·25	
17	9	12	1	...	...	...	...	38	23	61	1·91	1·17	1·54	87
1,563	714	301	158	37	6	6	16	3,043	2,678	5,721	4·49	4·25	4·38	88
1,580	723	313	159	37	6	6	16	3,081	2,701	5,782	4·42	4·16	4·29	
6	12	2	1	1	1	1	...	19	16	35	·19	·17	·18	89
...	...	...	...	1	...	...	...	...	2	2	...	·35	·16	90
6	12	2	1	2	1	1	...	19	18	37	·18	·18	·18	
78	75	33	17	15	7	6	2	219	223	442	·72	·76	·74	91
84	87	35	18	17	8	7	2	238	241	479	·58	·62	·60	
4	4	1	...	...	...	...	4	17	16	33	·42	·42	·42	92
9	3	1	...	...	...	...	...	15	13	28	2·51	2·05	2·27	93
13	7	2	...	...	...	...	4	32	29	61	·69	·66	·68	
581	482	348	225	95	27	21	39	1,371	1,345	2,716	2·88	2·98	2·93	94
594	489	350	225	95	27	21	43	1,403	1,374	2,777	2·69	2·77	2·73	
4	2	...	...	...	...	...	...	9	4	13	1·12	·52	·83	95
3	4	3	...	...	...	...	...	14	7	21	1·91	·98	1·45	96
7	6	...	2	...	...	...	...	15	6	21	2·82	1·22	2·05	97
19	12	3	2	...	...	...	...	38	17	55	1·84	·86	1·36	
253	150	103	33	20	8	15	6	766	596	1,362	3·90	3·54	3·74	98
272	162	106	35	20	8	15	6	804	613	1,417	3·71	3·26	3·50	
...	2	...	...	...	3	...	...	3	2	5	·36	·24	·30	99
66	82	63	21	8	1	14	31	223	184	407	1·39	1·29	1·35	100
66	84	63	21	8	4	14	31	226	186	412	1·34	1·23	1·29	
52	62	49	48	22	25	74	97	214	228	442	1·91	2·25	2·07	101
20,560	14,034	7,249	3,434	1,148	670	661	1,111	50,783	42,464	93,247	3·09	2·95	3·03	

APPEN

ANNUAL

Deaths registered from FEVER in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circles or Towns.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	**Total.**				
1	Kumaun.	Total of District containing 8 Circles,	231,146	201,742	432,888	239	251	185	2[illegible]
2	Garhwal.	Total of District containing 12 Circles.	155,745	154,537	310,282	176	326	204	413
3	Tarai.	Kashipur T., ...	6,783	6,438	13,221	17	6	11	15
4		In the 9 Rural Circles, ...	95,790	76,636	172,426	324	213	217	275
		Total of District, ...	102,573	83,074	185,647	341	219	228	290
5	Bijnor.	Nagina T., ...	9,981	9,715	19,696	11	8	7	8
6		Najibabad T., ...	10,091	9,565	19,656	10	15	12	10
7		Bijnor T., ...	7,071	5,995	13,066	16	4	4	6
8		Sherkot T., ...	6,353	6,233	12,586	8	7	10	11
9		Chandpur T., ...	6,170	5,863	12,033	17	9	13	11
		Total of Towns, ...	39,666	37,371	77,037	62	43	46	46
10		In the 27 Rural Circles, ...	355,729	304,386	660,115	675	419	434	519
		Total of District, ...	395,395	341,757	737,152	737	462	480	565
11	Moradabad.	Moradabad T., ...	30,664	29,202	59,866	59	44	59	30
12		Sambhal T., ...	17,095	17,544	34,639	41	30	35	36
13		Amroha T., ...	16,827	17,952	34,779	29	12	11	12
14		Chandausi T., ...	12,561	10,979	23,540	20	7	13	21
		Total of Towns, ...	77,147	75,677	152,824	149	93	118	99
15		In the 22 Rural Circles, ...	519,629	449,678	969,307	806	517	548	589
		Total of District, ...	596,776	525,355	1,122,131	955	610	666	688
16	Bareilly.	Bareilly T., ...	46,269	44,422	90,691	126	89	115	74
17		Pilibhit T., ...	15,138	14,702	29,840	28	23	28	22
18		Aonla T., ...	5,840	5,313	11,153	65	24	38	53
		Total of Towns, ...	67,247	64,437	131,684	219	136	181	149
19		In the 27 Rural Circles, ...	739,666	635,451	1,375,117	1,307	926	1,206	1,091
		Total of District, ...	806,913	699,888	1,506,801	1,526	1,062	1,387	1,240
20	Shahjahanpur.	Shahjahanpur T., ...	40,241	39,246	79,487	30	25	29	55
21		In the 23 Rural Circles, ...	470,895	399,089	869,984	890	649	772	823
		Total of District, ...	511,136	438,335	949,471	920	674	801	878
22	Budaun.	Budaun T., ...	15,533	15,694	31,227	8	16	8	7
23		Saheswan T., ...	8,616	8,445	17,061	14	5	16	21
		Total of Towns, ...	24,149	24,139	48,288	22	21	24	28
24		In the 18 Rural Circles, ...	479,470	406,590	886,060	881	569	554	589
		Total of District, ...	503,619	430,729	934,348	903	590	578	617
25	Dehra Dun.	Total of District containing 6 Circles.	68,044	47,667	115,711	95	75	81	63
26	Saharanpur.	Saharanpur T., ...	23,854	21,165	45,019	36	28	33	26
27		Deoband T., ...	10,131	9,252	19,383	11	9	16	15
28		Gangoh T., ...	5,728	5,254	10,982	13	2	10	12
29		Roorkee T., ...	6,550	4,228	10,778	5	4	10	[illegible]
		Total of Towns, ...	46,263	39,899	86,162	65	43	69	65
30		In the 22 Rural Circles, ...	438,245	359,375	797,620	695	495	588	565
		Total of District, ...	484,508	399,274	883,782	760	538	657	630

DIX H.

FORM No. VIII.

North-Western Provinces during each month of the year 1874.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
242	397	343	305	255	157	241	242	1,786	1,277	3,063	7·72	6·33	7·07	1
206	386	12	209	329	343	442	23	1,739	1,330	3,069	11·16	8·60	9·89	2
11	12	13	16	31	32	43	21	133	95	228	19·60	14·13	17·24	3
404	292	238	237	334	602	658	501	2,322	1,973	4,295	24·24	25·74	24·90	4
415	304	251	253	365	634	701	522	2,455	2,068	4,523	23·93	24·81	24·36	
9	22	15	14	20	25	11	11	74	87	161	7·41	8·95	8·17	5
20	17	19	16	14	33	33	30	140	89	229	13·87	9 30	11·65	6
17	18	12	13	16	21	10	10	69	73	142	9·75	12·17	10·86	7
15	21	12	11	15	27	12	18	90	77	167	14·16	12·35	13·27	8
13	13	6	12	12	17	4	6	68	65	133	11·02	11·08	11·05	9
74	86	64	66	77	123	70	75	441	391	832	11·12	10·46	10·80	
908	551	483	660	708	909	1,032	839	4,374	3,763	8,137	12·29	12·36	12·32	10
982	637	547	726	785	1,032	1,102	914	4,815	4,154	8,969	12·17	12·15	12·16	
40	52	70	77	105	101	100	107	422	422	844	13·76	14·45	14·09	11
50	34	57	64	48	58	44	29	283	243	526	16·55	13·85	15·18	12
18	10	22	24	32	35	31	14	115	135	250	6·88	7·52	7·19	13
11	16	26	24	26	30	13	13	138	82	220	10·98	7·46	9·84	14
119	112	175	189	211	224	188	163	958	882	1,840	12·41	11·65	12·04	
775	568	768	1,199	1,449	1,832	1,292	930	6,139	5,134	11,273	11·81	11·40	11·65	15
894	680	943	1,388	1,660	2,056	1,480	1,093	7,097	6,016	13,113	11·89	11·45	11·68	
85	79	89	126	150	133	143	125	638	696	1,334	13·79	15·66	14·71	16
42	14	22	34	24	38	44	25	193	151	344	12·74	10·27	11·52	17
66	36	69	105	105	113	132	121	530	397	927	90·75	74·72	83·11	18
198	129	180	265	279	284	319	271	1,361	1,244	2,605	20·21	19 30	19·78	
1,393	1,197	1,103	1,583	2,082	2,272	2,373	1,542	9,903	8,272	18,175	13·42	13·01	13·21	19
1,586	1,326	1,283	1,848	2,361	2,556	2,692	1,913	11,264	9,516	20,780	13·83	13·60	13·79	
112	58	86	102	111	104	69	70	404	447	851	10·03	11·39	10·70	20
976	776	858	1,450	1,239	1,629	1,307	1,009	6,597	5,781	12,378	14·00	14·48	14·23	21
1,088	834	944	1,552	1,350	1,733	1,376	1,079	7,001	6,228	13,229	13·69	14·20	13·92	
22	13	28	38	46	56	55	40	158	179	337	10·17	11·40	10·79	22
12	8	12	14	19	26	17	17	91	85	176	10 56	10·06	10·32	23
34	16	40	52	65	82	72	57	249	264	513	10 31	10·93	10·62	
838	702	814	1,561	1,497	1,897	1,290	1,165	6,836	5,521	12,357	14·25	13·58	13·94	24
872	718	854	1,613	1,562	1,979	1,362	1,222	7,085	5,785	12,870	10·40	13·43	13·77	
154	102	69	86	102	99	112	98	712	424	1,136	10·46	88·9	9·81	25
38	36	29	30	51	36	23	33	186	213	399	7·79	10·06	8·86	26
17	17	17	15	20	28	20	19	105	99	204	10·36	10·70	10·52	27
23	16	20	20	27	9	13	5	84	86	170	14 66	16·36	15·48	28
21	7	10	19	11	9	6	13	71	56	127	10·84	13·24	11·78	29
99	75	76	84	109	82	62	70	446	454	900	9·84	11·38	10·44	
796	705	594	849	758	1,045	1,178	942	4,905	4,305	9,210	11·19	11·98	11·54	30
895	781	670	933	867	1,127	1,240	1,012	5,851	4,759	10,110	11·04	11·91	11·44	

APPEN

ANNUAL

Deaths registered from FEVER in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circles or Towns.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
31	MUZAFFAR-NAGAR.	Kairana T., ...	9,117	8,625	17,742	27	12	17	8
32		Kandhla T., ...	5,799	5,227	11,026	24	11	22	25
33		Muzaffarnagar T., ...	6,105	4,688	10,793	12	12	12	13
		Total of Towns, ...	21,021	18,540	39,561	63	35	51	46
34		In the 25 Rural Circles, ...	354,587	295,934	650,521	879	615	626	673
		Total of District, ...	375,608	314,474	690,082	942	650	677	719
35	MEERUT.	Meerut T., ...	27,383	24,608	51,991	83	86	79	94
36		Hapur T., ...	7,601	6,943	14,544	24	10	16	8
37		Sardhana T., ...	6,508	5,961	12,469	9	14	20	22
		Total of Towns, ...	41,492	37,512	79,004	116	110	115	124
38		In the 40 Rural Circles, ...	643,912	550,998	1,194,910	1,356	1,145	1,076	1,146
		Total of District, ...	685,404	588,510	1,273,914	1,472	1,255	1,191	1,270
39	BULANDSHAHR.	Khurja T., ...	13,770	13,088	26,858	18	12	13	13
40		Sikandarabad T., ...	9,514	8,835	18,349	15	22	13	8
41		Bulandshahr T., ...	7,730	7,082	14,812	19	21	30	12
42		Shikarpur T., ...	5,798	5,540	11,338	7	10	3	8
		Total of Towns, ...	36,812	34,545	71,357	59	65	59	41
43		In the 29 Rural Circles, ...	456,870	408,366	865,236	952	727	844	758
		Total of District, ...	493,682	442,911	936,593	1,011	792	903	799
44	ALIGARH.	Aligarh or Koil T., ...	29,697	26,149	55,846	44	28	38	38
45		Hathras T., ...	16,528	14,372	30,900	54	36	24	22
46		Atrauli T., ...	8,095	7,527	15,622	24	18	26	21
47		Sikandra Rao T., ...	5,668	5,146	10,814	...	38	10	4
		Total of Towns, ...	59,988	53,194	113,182	122	120	198	85
48		In the 28 Rural Circles, ...	517,275	442,651	959,926	767	620	720	557
		Total of District, ...	577,263	495,845	1,073,108	889	740	818	642
49	ETAH.	Kasganj T., ...	8,393	7,371	15,764	20	28	30	25
50		Soron T., ...	7,093	6,565	13,658	21	9	5	7
		Total of Towns, ...	15,486	13,936	29,422	41	37	35	32
51		In the 18 Rural Circles, ...	367,260	306,803	674,063	861	497	722	637
		Total of District, ...	382,746	320,739	703,485	902	534	757	669
52	MUTTRA.	Muttra T., ...	32,963	30,468	63,431	53	50	43	47
53		Bindraban T., ...	10,965	10,039	21,004	21	16	7	11
54		Kosi T., ...	6,568	6,202	12,770	4	4	3	7
		Total of Towns, ...	50,496	46,709	97,205	78	70	58	65
55		In the 28 Rural Circles, ...	430,119	360,031	790,150	661	465	460	455
		Total of District, ...	480,615	406,740	887,355	739	535	513	520
56	FARUKHA-BAD.	Farukhabad T., ...	38,249	37,702	75,951	...	...	...	...
57		Kanauj T., ...	8,772	8,321	17,093	...	...	...	...
58		Kanuganj T., ...	5,287	5,036	10,323	...	...	...	...
		Total of Towns, ...	52,308	51,059	103,367	...	...	...	...
59		In the 17 Rural Circles, ...	447,414	367,967	815,381	841	632	590	606
		Total of District, ...	499,722	419,026	918,748	841	632	590	606
60	MAINPURI.	Mainpuri T., ...	9,723	8,878	18,601	45	37	52	44
61		Shikohabad T., ...	5,367	4,702	10,069	24	13	21	16
		Total of Towns, ...	15,090	13,580	28,670	69	50	73	60
62		In the 17 Rural Circles, ...	411,865	325,248	737,113	1,001	934	959	756
		Total of District, ...	426,955	338,828	765,783	1,070	984	1,032	816

APPENDIX H.

FORM No. VIII.

North-Western Provinces during each month of the year 1874.—(continued).

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
30	17	19	43	70	96	52	58	226	223	449	24·79	25·85	25'30	31
16	21	18	32	43	27	26	8	131	142	273	22·59	27·16	24'75	32
12	22	7	11	14	23	19	10	78	89	167	12·77	18·98	15'47	33
58	60	44	86	127	146	97	76	435	454	889	20·69	24·48	22'47	
959	946	861	1,177	1,306	1,630	1,199	1,195	6,512	5,554	12,066	19·36	18·76	18'54	34
1,017	1,006	905	1,263	1,433	1,776	1,296	1,271	6,947	6,008	12,955	18·49	19·10	18'77	
107	98	102	254	389	431	311	209	1,114	1,129	2,243	40·68	45·88	43'14	35
29	12	16	88	75	119	59	31	237	245	482	31·18	35·28	33'14	36
27	18	14	33	56	34	39	26	159	153	312	24·43	25·65	25'02	37
163	128	132	370	520	584	409	266	1,510	1,527	3,037	33·74	40·70	38'44	
1,320	1,257	1,268	2,960	3,980	4,410	3,226	2,729	13,785	12,088	25,873	21·40	21·90	21'65	38
1,483	1,385	1,400	3,330	4,500	4,994	3,635	2,995	15,295	13,615	28,910	22·31	23·13	22'69	
20	12	45	311	785	695	439	215	1,169	1,359	2,528	84·89	10·383	94'12	39
19	27	35	66	74	146	125	55	266	339	605	27·95	38 37	32'97	40
23	27	43	93	172	308	316	168	575	657	1,232	74·38	92·77	83'17	41
9	9	9	30	24	30	12	12	83	80	163	14·31	14·44	14'37	42
71	75	132	500	1,005	1,179	892	450	2,093	2,435	4,528	56 85	70·48	63'45	
904	1,000	1,190	3,139	4,192	7,933	3,892	2,380	13,414	12,497	25,911	29·35	30·60	29'94	43
975	1,075	1,322	3,639	5,197	7,112	4,784	2,830	15,507	14,932	30,439	31·42	33 71	32'50	
50	45	55	67	97	145	129	85	404	417	821	13·60	15·94	14'70	44
69	54	45	33	61	96	75	52	313	308	621	18·93	21·42	20'09	45
25	26	27	121	30	38	30	18	211	193	404	26·06	25·64	25'86	46
6	12	14	21	22	17	38	29	112	99	211	19·76	19·29	19'51	47
150	137	141	242	210	296	272	184	1,040	1,017	2,057	17·33	19·11	18'17	
721	716	783	1,353	1,832	2,768	2,488	1,515	8,058	6,782	14,840	15·57	15·32	15'46	48
871	853	924	1,595	2,042	3,064	2,760	1,699	9,098	7,799	16,897	15·76	15·73	15'74	
32	26	33	55	69	112	63	50	276	267	543	32·88	36·22	34'44	49
17	10	9	31	51	71	70	40	170	171	341	23·96	26·00	24'96	50
49	36	42	86	120	183	133	90	446	438	884	28·60	31·48	30'04	
647	672	704	1,341	1,393	1,940	1,419	989	6,414	5,408	11,822	17·46	17·62	17'53	51
696	708	746	1,427	1,513	2,123	1,552	1,079	6,860	5,846	12,706	17·92	18·22	18'06	
60	61	46	66	59	84	119	76	386	378	764	11·71	12·45	12'04	52
22	18	16	56	60	95	77	43	223	219	442	20·33	21·81	21'04	53
5	6	12	17	17	22	14	11	61	61	122	9·28	9·83	9'55	54
87	85	74	139	136	201	210	130	670	658	1,328	13·26	14·08	13'66	
583	545	466	737	902	1,307	894	867	4,588	3,764	8,352	10·66	10·45	10'57	55
670	630	540	876	1,038	1,508	1,104	1,007	5,258	4,422	9,680	10·94	10·87	10'90	
...	...	67	87	109	165	82	111	291	330	621	7·60	8·75	8'17	56
...	...	12	32	...	27	17	20	57	51	108	6·49	6·13	6'31	57
...	...	7	15	14	17	11	20	46	38	84	8·70	7·54	8'13	58
...	...	86	134	123	209	110	151	394	419	813	7·53	8·20	7'86	59
471	484	532	991	1,198	1,808	1,337	1,010	5,889	4,611	10,500	13·16	12·58	12'87	60
471	484	618	1,125	1,321	2,017	1,447	1,161	6,288	5,030	11,318	12·57	12·00	12'31	
56	40	49	53	95	106	83	54	370	344	714	38·05	38·74	38'38	61
10	13	25	30	34	59	52	56	186	167	353	34·65	35·51	35'05	62
66	53	74	83	129	165	135	110	556	511	1,067	36·84	37·62	37'21	
796	704	705	1,236	1,341	1,726	1,702	1,299	7,397	5,762	13,159	17 96	17·71	17'85	
862	757	779	1,319	1,470	1,891	1,837	1,409	7,953	6,273	14,226	18·63	18·51	18'57	

APPEN

ANNUAL

Deaths registered from FEVER in the Rural Circles and Towns of the

1. Number.	2. District.	3. Name of Rural Circles or Towns.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
63	AGRA.	Agra T., ...	80,804	69,873	150,677	143	109	127	144
64		Jalesar T., ...	7,640	7,262	14,902	12	14	13	18
65		Firozabad T., ...	7,058	6,730	13,788	14	19	13	13
		Total of Towns, ...	95,502	83,865	179,367	169	142	153	175
66		In the 34 Rural Circles, ...	494,060	420,757	914,817	952	743	738	668
		Total of District, ...	589,562	504,622	1,094,184	1,121	885	891	843
67	ETAWAH.	Etawah T., ...	16,344	14,205	30,549	37	40	37	28
68		In the 20 Rural Circles, ...	353,584	284,448	638,032	1,007	647	779	715
		Total of District, ...	369,928	298,653	668,581	1,044	683	816	743
69	CAWNPORE.	Cawnpore T., ...	54,043	44,433	98,476	171	136	118	122
70		In the 26 Rural Circles, ...	565,075	491,888	1,056,963	1,492	1,230	1,248	1,015
		Total of District, ...	619,118	536,321	1,155,439	1,663	1,366	1,366	1,137
71	FATEHPUR.	Fatehpur T., ...	9,605	9,459	19,064	26	14	20	14
72		In the 22 Rural Circles, ...	335,928	308,823	644,751	750	564	560	385
		Total of District, ...	345,533	318,282	663,815	776	578	580	399
73	JAUNPUR.	Jaunpur T., ...	17,748	17,255	35,003	79	37	42	64
74		In the 18 Rural Circles, ...	527,952	462,914	990,866	1,124	993	814	806
		Total of District, ...	545,700	480,169	1,025,869	1,203	1,030	856	870
75	HAMIRPUR.	Rath T., ...	7,094	7,421	14,515	14	12	13	9
76		In the 29 Rural Circles, ...	269,102	245,520	514,622	649	538	405	240
		Total of District, ...	276,196	252,941	529,137	663	550	418	249
77	BANDA.	Banda T., ...	13,612	13,030	26,642	45	31	28	36
78		In the 28 Rural Circles, ...	346,153	324,816	670,969	1,130	850	532	362
		Total of District, ...	359,765	337,846	697,611	1,175	881	560	398
79	ALLAHABAD.	Allahabad T., ...	81,765	64,099	145,864	84	69	88	84
80		In the 33 Rural Circles, ...	633,345	615,036	1,248,381	1,350	921	983	677
		Total of District, ...	715,110	679,135	1,394,245	1,434	990	1,071	761
81	GORAKHPUR.	Gorakhpur T., ...	27,571	24,062	51,633	159	134	156	122
82		In the 35 Rural Circles, ...	1,050,501	917,216	1,967,717	3,217	2,752	2,652	2,366
		Total of District, ...	1,078,072	941,278	2,019,350	3,376	2,886	2,808	2,488
83	BASTI.	Total of District containing 27 Circles,	784,691	688,303	1,472,994	1,330	1,215	1,212	1,073

DIX H.

FORM No. VIII.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
161	172	180	253	250	246	241	238	1,128	1,136	2,264	13·95	16·25	15·02	63
27	15	26	51	56	73	69	39	190	223	413	24·86	30·70	27·71	64
23	15	34	28	25	40	31	38	138	150	288	19·55	22·28	20·88	65
211	202	240	332	331	359	341	310	1,456	1,509	2,965	15·24	17·99	16·53	
780	757	687	1,015	1,205	1,919	1,568	1,283	6,708	5,607	12,315	13·53	13·32	13·46	66
991	959	927	1,347	1,536	2,278	1,909	1,593	8,164	7,116	15,280	13·84	14·09	13·96	
37	34	25	66	55	77	69	60	268	297	565	16·39	20·90	18·49	67
657	573	618	1,072	1,211	1,778	1,680	1,386	6,625	5,494	12,119	18·59	19·1	18·98	68
694	607	643	1,138	1,266	1,855	1,749	1,446	6,893	5,791	12,684	18·63	19·39	18·97	
166	90	140	159	132	144	111	145	787	847	1,634	14·56	19·06	16·59	69
1,246	1,100	1,190	2,062	1,866	2,507	1,778	1,787	9,969	8,552	18,521	17·64	17·38	17·52	70
1,412	1,190	1,330	2,221	1,998	2,651	1,889	1,932	10,756	9,399	20,155	17·37	17·52	17·44	
20	16	18	23	19	24	24	17	113	122	235	11·76	12·89	12·32	71
363	309	307	575	567	674	587	585	3,398	2,828	6,226	10·15	9·15	9·65	72
383	325	325	598	586	698	611	602	3,511	2,950	6,461	10·16	9·26	9·73	
45	25	34	27	79	52	31	26	282	259	541	15·88	15·01	15·45	73
788	680	945	1,244	1,277	1,197	1,295	861	6,984	5,040	12,024	13·22	10 88	12·13	74
833	705	979	1,271	1,356	1,249	1,326	887	7,266	5,299	12,565	13·31	11·03	12·24	
8	3	4	19	39	41	24	22	115	93	208	16·21	12·51	14·33	75
315	271	394	626	594	806	775	666	3,582	2,697	6,279	13·31	10·98	12·20	76
323	274	398	645	633	847	799	688	3,697	2,790	6,487	13 38	11·03	12·26	
39	18	21	21	20	36	22	27	174	170	344	12·78	13·04	12·91	77
456	456	467	699	681	851	767	757	4,635	3,373	8,008	13·39	10·38	11·93	78
495	474	488	720	701	887	789	784	4,809	3,543	8,352	13·36	10·48	11·97	
118	71	92	120	83	82	68	87	547	499	1,046	6·69	7·78	7·17	79
742	595	853	1,106	1,118	1,184	865	1,039	6,283	5,150	11,433	9·92	8·37	9·15	80
860	666	945	1,226	1,201	1,266	933	1,126	6,830	5,649	12,479	9·55	8·31	8·95	
136	106	163	186	199	138	111	96	997	709	1,706	36 16	29·46	33·04	81
1,764	1,693	2,458	3,280	3,340	3,889	2,780	2,411	19,874	12,728	32,602	18·91	13 87	16·57	82
1,900	1,799	2,621	3,466	3,539	4,027	2,891	2,507	20,871	13,437	34,308	19·36	14 27	169	
879	723	933	1,284	1,212	1,370	1,318	1,188	8,037	5,700	13,737	10·24	8·28	9·32	83

APPEN

ANNUAL

Deaths registered from FEVER in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Name of Rural Circles or Towns.	*Population according to Census of* 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
84	Azamgarh.	Azamgarh T., ...	8,916	7,064	15,980	23	19	29	28
85		Mau T., ...	5,794	5,521	11,315	9	13	18	19
		Total of Towns, ...	14,710	12,585	27,295	32	32	47	47
86		In the 27 Rural Circles, ...	811,435	692,680	1,504,115	1,903	2,200	1,989	1,611
		Total of District, ...	826,145	705,265	1,531,410	1,935	2,232	2,036	1,658
87	Ghazipur.	Ghazipur T., ...	19,889	19,619	39,508	35	34	38	39
88		In the 27 Rural Circles, ...	676,683	629,210	1,305,893	1,955	1,278	1,417	1,289
		Total of District, ...	696,572	648,829	1,345,401	1,990	1,312	1,455	1,328
89	Benares.	Benares T., ...	96,814	90,527	187,341	215	217	216	212
90		Ramnagar T., ...	6,256	5,697	11,953	7	5	11	7
		Total of Towns, ...	103,070	96,224	199,294	229	222	227	219
91		In the 14 Rural Circles, ...	303,274	291,131	594,405	566	520	498	501
		Total of District, ...	406,344	387,355	793,699	795	742	725	720
92	Mirzapur.	Mirzapur T., ...	39,814	37,415	77,229	77	59	65	102
93		Chunar T., ...	5,976	6,313	12,289	19	10	21	25
		Total of Towns, ...	45,790	43,728	89,518	96	69	86	127
94		In the 23 Rural Circles, ...	474,706	451,069	925,775	1,079	890	763	1,025
		Total of District, ...	520,496	494,797	1,015,293	1,175	959	849	1,152
95	Jalaun.								
96		Kalpi T., ...	8,021	7,549	15,570	20	16	3	16
97		Kunch T., ...	7,309	7,139	14,448	7	2	7	7
		Jalaun T., ...	5,309	4,888	10,197	14	10	12	10
		Total of Towns, ...	20,639	19,576	40,215	41	28	22	33
98		In the 21 Rural Circles, ...	195,968	168,201	364,169	432	304	296	247
		Total of District, ...	216,607	187,777	404,384	473	332	318	280
99	Jhansi.	Mau T., ...	8,205	8,223	16,428	15	9	21	15
100		In the 24 Rural Circles, ...	159,314	141,993	301,307	381	312	244	173
		Total of District, ...	167,519	150,216	317,735	396	321	265	188
101	Lalitpur.	Total of District containing 20 Circles,	111,625	101,003	212,628	146	109	132	100
		Grand Total for the Province,	16,406,833	14,362,223	30,769,056	35,213	28,000	28,106	26,018

DIX H.

FORM No. VIII.

North-Western Provinces during each month of the year 1874.—(concluded).

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of Population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
20	23	36	29	53	24	21	27	168	164	332	18·84	23·21	20·78	84
11	5	14	20	9	29	23	14	97	87	184	16·74	15·75	16·26	85
31	28	50	49	62	53	44	41	265	251	516	18·01	19 94	18·90	
1,255	1,258	1,697	2,433	2,494	2,739	1,928	1,727	12,929	10,305	23,234	15·93	14·87	15·44	86
1,286	1,286	1,747	2,482	2,556	2,792	1,972	1,768	13,194	10,556	23,750	15·97	14·96	15·50	
40	40	66	66	128	81	73	58	361	337	698	18·15	17·17	17·66	87
1,168	1,071	1,599	2,449	2,207	2,296	1,495	1,586	11,167	8,643	19,810	16·50	13·73	15·17	88
1,208	1,111	1,665	2,515	2,335	2,377	1,568	1,644	11,528	8,980	20,508	16·55	13·84	15·24	
225	207	195	247	254	229	162	209	1,449	1,130	2,579	14·96	12·48	13·76	89
6	8	8	15	16	12	11	7	61	52	113	9·75	9·12	9·45	90
231	215	203	262	270	241	173	207	1,510	1,182	2,692	14·65	12·28	13·50	
458	500	689	768	768	685	581	447	4,015	2,973	6,988	13·20	10·21	11·75	91
689	715	892	1,030	1,038	926	754	654	5,525	4,155	9,680	13·59	10·72	12·19	
109	77	87	102	102	89	79	101	504	545	1,049	12·65	14·56	13·58	92
30	16	31	32	34	24	15	18	158	117	275	26·44	18·53	22·37	93
139	93	118	134	136	113	94	119	662	662	1,324	14·45	15·14	14·79	
800	732	1,092	1,249	1,498	1,431	1,178	1,109	7,015	5,831	12,846	14·77	12·92	13·87	94
939	825	1,210	1,383	1,634	1,544	1,272	1,228	7,677	6,493	14,170	14·74	13·12	13·95	
21	14	27	38	20	40	31	28	173	101	274	21·56	13·37	17·59	95
12	9	20	48	49	51	29	30	149	122	271	20·38	17·08	18·75	96
15	12	10	22	24	43	38	29	134	105	239	25·24	21·48	23·43	97
48	35	57	108	93	134	98	87	456	328	784	22·09	16·75	19·49	
267	273	325	494	467	799	642	478	2,917	2,107	5,024	14 88	12·52	13·79	98
315	308	382	602	560	933	740	565	3,373	2,435	5,808	15·57	12·96	14·36	
10	13	6	17	10	26	28	19	101	88	189	12·30	10·70	11·50	99
220	181	227	249	229	300	402	325	1,845	1,396	3,241	12·20	9·83	10·75	100
230	194	231	266	239	326	430	344	1,946	1,484	3,430	13·61	9 87	10·79	
109	93	143	148	121	236	205	204	942	804	1,746	8 43	7 96	8·21	101
27,925	25,317	29,009	45,829	50,661	62,463	50,318	40,729	247,525	202,063	449,588	15·08	14·06	14·61	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns of the

1. Number.	2. District.	3. Name of Rural Circles or Towns.	4. Population according to Census of 1872. Male.	Female.	Total.	January.	February.	March.	April.
1	Garhwal Kumaon.	Total of District containing 8 Circles, ...	231,146	201,742	432,888	95	60	72	78
2		Total of District containing 12 Circles, ...	155,745	154,537	310,282	96	117	86	90
3	Tarai.	Kashipur T., ...	6,783	6,438	13,221	7	6	5	7
4		In the 9 Rural Circles, ...	95,790	76,636	172,426	47	20	21	28
		Total of District, ...	102,573	83,074	185,647	54	26	26	35
5	Bijnor.	Nagina T., ...	9,981	9,715	19,696	2	1	1	...
6		Najibabad T., ...	10,091	9,565	19,656	3	4	4	1
7		Bijnor T., ...	7,071	5,995	13,066	10	4	4	6
8		Sherkot T., ...	6,353	6,233	12,586	5	...	4	...
9		Chandpur T., ...	6,170	5,863	12,033	4	...	3	5
		Total of Towns, ...	39,666	37,371	77,037	24	9	16	12
10		In the 27 Rural Circles, ...	355,729	304,386	660,115	160	79	113	117
		Total of District, ...	395,395	341,757	737,152	184	88	129	129
11	Moradabad.	Moradabad T., ...	30,664	29,202	59,866	14	3	11	18
12		Sambhal T., ...	17,095	17,544	34,639	15	9	6	8
13		Amroha T., ...	16,827	17,952	34,779	20	13	28	22
14		Chandausi T., ...	12,561	10,979	23,540	11	10	7	9
15		Total of Towns, ...	77,147	75,677	152,824	60	35	52	57
		In the 22 Rural Circles, ...	519,629	449,678	969,307	218	157	159	202
		Total of District, ...	596,776	525,355	1,122,131	278	192	211	259
16	Bareilly.	Bareilly T., ...	46,269	44,422	90,691	82	62	46	35
17		Pilibhit T., ...	15,138	14,702	29,840	9	6	6	10
18		Aonla T., ...	5,840	5,313	11,153	20	4	4	8
		Total of Towns, ...	67,247	64,437	131,684	111	72	56	53
19		In the 27 Rural Circles, ...	739,666	635,451	1,375,117	94	92	99	109
		Total of District, ...	806,913	699,888	1,506,801	205	164	155	162
20	Shahjahanpur.	Shahjahanpur T., ...	40,241	39,246	79,487	25	11	14	27
21		In the 23 Rural Circles, ...	470,895	399,089	869,984	195	140	179	254
		Total of District, ...	511,136	438,335	949,471	220	151	193	281
22	Budaun.	Budaun T., ...	15,533	15,694	31,227	4	2	1	2
23		Saheswan T., ...	8,616	8,445	17,061	4	4	...	1
		Total of Towns, ...	24,149	24,139	48,288	8	6	1	3
24		In the 18 Rural Circles, ...	479,470	406,590	886,060	111	79	119	83
		Total of District, ...	503,619	430,729	934,348	119	85	120	86
25	Dehra Dun.	Total of District containing 6 Circles, ...	68,044	47,667	115,711	45	26	30	18
26	Saharanpur.	Saharanpur T., ...	23,854	21,165	45,019	11	30	32	28
27		Deoband T., ...	10,131	9,252	19,383	12	6	11	9
28		Gangoh T., ...	5,728	5,254	10,982	5	...	3	6
29		Roorkee T., ...	6,550	4,228	10,778	...	1	...	...
		Total of Towns, ...	46,263	39,899	86,162	28	37	46	43
30		In the 22 Rural Circles, ...	438,245	359,375	797,620	107	81	101	109
		Total of District, ...	484,508	399,274	883,782	135	118	147	152

DIX I.

FORM No. IX.

North-Western Provinces during each month of the year 1874.

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
140	275	256	164	124	99	58	78	776	723	1,499	3·35	3·58	3'46	1
164	319	339	289	131	105	132	159	1,030	997	2,027	6·61	6·45	6'53	2
14	7	6	6	3	2	...	...	34	29	63	5 01	4·50	4'76	3
41	21	21	40	31	22	28	9	187	142	329	1·95	1·85	1'90	4
55	28	27	46	34	24	28	9	221	171	392	2·15	2·05	2'11	
7	6	1	13	4	3	5	6	25	24	49	2 50	2·46	2'49	5
9	7	4	4	4	7	6	7	34	26	60	3·36	2 71	3'05	6
15	5	17	14	11	13	9	13	66	55	121	9 33	9·17	9'26	7
2	2	5	5	5	5	6	2	19	22	41	2·99	3·52	3'26	8
1	7	5	10	5	4	1	1	26	20	46	4 21	3·41	3'82	9
34	27	32	46	29	32	27	29	170	147	317	4·28	3·93	4'11	
169	133	133	159	200	231	219	198	1,056	845	1,911	2·99	2·77	2'89	10
203	160	165	205	229	263	246	227	1,236	992	2,228	3·12	2·90	3'02	
16	16	41	42	56	34	46	30	185	142	327	6·03	4·86	5'46	11
6	7	20	20	23	23	10	5	75	77	152	4·38	4·38	4'39	12
19	20	37	40	38	38	31	42	185	163	348	10 99	90·79	10'00	13
17	11	23	36	41	34	22	14	114	121	235	9·09	11·02	9'98	14
58	54	121	138	158	129	109	91	559	503	1,062	7·24	6·64	6 95	
243	163	258	409	407	445	392	287	1,859	1,481	3'340	3·57	3·29	3'44	15
301	217	379	547	565	574	501	378	2,418	1,984	4,402	4·05	3 77	3'92	
42	46	73	113	87	78	71	58	396	397	793	8·55	8·93	8'74	16
7	12	7	7	6	6	8	3	52	35	87	3·43	2·38	2'91	17
10	2	6	7	15	7	...	2	50	35	85	8·56	6·58	7'62	18
59	60	86	127	108	91	79	63	498	467	965	7·40	7·24	7'32	
147	107	91	131	198	165	179	125	872	665	1,537	1·17	1·01	1'11	19
206	167	177	258	306	256	258	188	1,370	1,132	2,502	1·69	1·61	1'66	
49	23	38	43	62	27	37	18	195	171	366	4·84	4·35	4'60	20
268	220	301	397	377	331	284	213	1,690	1,469	3,159	3·58	3·68	3'63	21
317	243	334	437	439	358	321	231	1,885	1,640	3,525	3·68	3·74	3'71	
19	18	53	100	70	63	14	61	230	177	407	14·80	11·27	13'03	22
4	4	8	17	3	9	7	3	38	26	64	4·41	3·07	3'75	23
23	22	61	117	73	72	21	64	268	203	471	11 09	8·40	9'75	
135	151	212	390	406	327	271	181	1,352	1,113	2,465	2·81	2·73	2'78	24
158	173	273	507	479	399	292	245	1,620	1,316	2,936	3·21	3·05	3'14	
79	44	44	44	38	32	52	27	275	204	479	4·04	4·27	4'14	25
51	46	59	92	89	83	71	40	350	282	632	14·67	13·32	14'04	26
23	13	25	36	31	23	15	18	116	106	222	11·45	11·45	11'45	27
2	...	2	13	12	5	3	9	29	31	60	5·06	5·90	5'46	28
...	...	...	1	...	1	...	...	3	...	3	0·45	...	·27	29
76	59	86	142	132	112	89	67	498	419	917	10 75	10·50	10'64	30
195	179	199	232	191	245	285	149	1,101	972	2,073	2·51	2·70	2'59	
271	238	285	374	323	357	374	216	1,599	1,391	2,990	3 30	3·48	3'38	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Names of Rural Circles or Towns.	*Population according to Census of 1872.*			January.	February.	March.	April.
			Male.	Female.	Total.				
31	Muzaffarnagar	Kairana T., ...	9,117	8,625	17,742	...	12	1	...
32		Kandla T, ...	5,799	5 227	11,026	...	...	...	...
33		Muzaffarnagar T., ...	6,105	4,688	10,793	1	1	...	3
		Total of Towns, ...	21,021	18,540	39,561	1	13	1	3
34		In the 25 Rural Circles, ...	354,587	295,934	650,521	107	86	62	49
		Total of District, ...	375,608	314,474	690,082	108	99	63	52
35	Meerut.	Meerut T., ...	27,3 3	24,608	51,991	22	17	11	15
36		Hapur T., ...	7,601	6,943	14,544	13	16	13	10
37		Sardhana T., ...	6,508	5,961	12,469	...	3	...	...
		Total of Towns, ...	41,492	37,512	79,004	35	36	24	25
38		In the 40 Rural Circles, ...	643,912	550,998	1,194,910	150	135	125	115
		Total of District, ...	685,404	588,510	1,273,914	185	171	149	140
39	Bulandshahr.	Khurja T, ...	13,770	13,088	26,858	16	11	10	13
40		Sikandrabad T., ...	9,514	8,835	18,349	27	25	24	22
41		Bulandshahr T, ...	7,7 0	7,082	14,812	1	...	2	...
42		Shikarpur T., ...	5,798	5,540	11,338	1	...	3	1
		Total of Towns, ...	36,812	34,545	71,357	45	36	39	36
43		In the 29 Rural Circles, ...	456,870	408,366	865,236	105	79	85	95
		Total of District, ...	493,682	442,911	936,593	150	115	124	131
44	Aligarh.	Aligarh or Koil T., ...	29,697	26,149	55,846	27	24	14	26
45		Hathras T., ...	16,5 8	14,372	30,900	22	16	16	14
46		Atranli T., ...	8 095	7,527	15,622	2	1	3	2
47		Sikandra Rao T., ...	5,668	5,146	10,814	...	...	1	...
		Total of Towns, ...	59,988	53,194	113,182	51	41	34	42
48		In the 28 Rural Circles, ...	517,275	442,651	959,926	130	92	100	79
		Total of District, ...	577,263	495,845	1,073,108	181	133	134	121
49	Etah.	Kasganj T., ...	8,393	7,371	15,764	3	3	3	2
50		Soron T., ...	7,093	6,565	13,658	...	...	...	...
		Total of Towns, ...	15,486	13,936	29,422	3	3	3	2
51		In the 18 Rural Circles, ...	367,260	306,803	674,063	19	8	15	15
		Total of District, ...	382,746	320,739	703,485	22	11	18	17
52	Muttra.	Muttra T., ...	32,963	30,468	63,431	25	31	30	29
53		Bindraban T., ...	10,965	10,039	21,004	19	15	7	11
54		Kosi T., ...	6,568	6,202	12,770	3	3	1	2
		Total of Towns, ...	50,496	46,709	97,205	47	49	38	42
55		In the 28 Rural Circles, ...	430,119	360,031	790,150	77	66	61	79
		Total of District, ...	480,615	406,740	887,355	124	115	99	121

DIX I.

FORM No. IX.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	...	7	7	4	6	...	19	18	37	2·08	2·08	2·08	31
2	2	...	4	7	5	9	3	19	13	32	3·27	2·48	2·90	32
3	6	4	6	5	6	4	7	22	24	46	3·60	5·11	4·26	33
5	8	4	17	19	15	19	10	60	55	115	2·85	2·96	2·90	
81	40	66	77	75	89	109	90	596	335	931	1·68	1·13	1·43	34
86	48	70	94	94	104	128	100	656	390	1,046	1·74	1·24	1·51	
15	12	32	51	18	22	19	10	126	118	244	4·60	4·79	4·69	35
10	4	4	14	12	5	14	...	60	55	115	7·89	7·92	7·90	36
1	1	1	3	...	...	1	1	8	3	11	1·22	0·50	0·88	37
26	17	37	68	30	27	34	11	194	176	370	4·67	4·69	4·68	
134	89	93	181	219	164	122	96	957	666	1,623	1·48	1·20	1·35	38
160	106	130	249	249	191	156	107	1,151	842	1,993	1·67	1·43	1·56	
9	24	42	21	7	2	2	3	69	91	160	5·01	6 95	5·95	39
28	25	50	68	71	52	54	52	250	248	498	26·27	28·07	27·14	40
5	2	5	2	...	...	...	...	7	10	17	·90	1·41	1·14	41
1	2	3	5	...	1	...	2	9	10	19	1·55	1·79	1·67	42
43	53	100	96	78	55	56	57	335	359	694	9 10	10·39	9·72	
73	98	131	170	118	108	73	48	713	470	1,183	1·56	1·15	1·36	43
116	151	231	266	196	163	129	105	1,048	829	1,877	2·12	1 87	2·00	
32	36	71	94	99	58	50	59	289	292	581	9·73	11·16	10·40	44
30	35	44	91	108	92	46	41	283	272	555	17·12	18·92	17·96	45
4	7	7	4	9	8	4	5	30	26	56	3·70	3·45	3·58	46
1	1	3	...	1	1	2	...	6	4	10	1·05	·77	·92	47
67	79	125	189	208	159	102	105	608	594	1,202	10·13	11·16	10·62	
128	89	137	239	382	250	275	153	1,142	912	2,054	2·20	2·06	2·14	48
195	168	262	428	590	409	377	258	1,750	1,506	3,256	3·31	3·03	3·03	
...	1	11	...	1	4	...	1	15	14	29	1·78	1·89	1·84	49
2	17	3	1	1	2	...	...	11	15	26	1·55	2·28	1·90	50
2	18	14	1	2	6	...	1	26	29	55	1·67	2·08	1·87	
12	20	31	47	64	29	35	16	186	125	311	·50	·40	·46	51
14	38	45	48	66	35	35	17	212	154	366	·55	·47	·52	
37	44	60	75	61	79	49	53	299	274	573	9·07	8·99	9·03	52
20	9	16	33	30	50	40	40	139	151	290	12·67	15·04	13·80	53
4	7	8	6	9	4	16	14	39	38	77	5·93	6·12	6·03	54
61	60	84	114	100	133	105	107	477	463	940	9·44	9 9:	9·67	
65	121	109	183	229	156	147	157	882	578	1,460	2·05	1·60	1·84	55
126	181	193	297	329	299	252	264	1,359	1,041	2,400	2·82	2·55	2·70	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns of the

1.	2.	3.	4.						
			Population according to Census of 1872.						
Number.	District.	Names of Rural Circles or Towns.	Male.	Female.	Total.	January.	February.	March.	April.
56	Farukhabad.	Farukhabad T., ...	38,249	37,702	75,951	...	...	...	...
57		Kanauj T., ...	8,772	8,321	17,093	...	...	...	...
58		Kaimganj T., ...	5,287	5,036	10,323	...	...	...	...
		Total of Towns, ...	52,308	51,059	103,367	...	...	...	...
59		In the 17 Rural Circles, ...	447,414	367,967	815,381	84	47	59	78
		Total of District, ...	499,722	419,026	918,748	84	47	59	78
60	Mainpuri.	Mainpuri T., ...	9,723	8,878	18,601	...	...	...	1
61		Shikohabad T., ...	5,367	4,702	10,069	...	...	...	...
		Total of Towns, ...	15,090	13,580	28,670	...	...	...	1
62		In the 17 Rural Circles, ...	411,865	325,248	737,113	19	26	26	15
		Total of District, ...	426,955	338,828	765,783	19	26	26	16
63	Agra.	Agra T., ...	80,804	69,873	150,677	60	28	31	44
64		Jalesar T., ...	7,640	7,262	14,902	15	8	6	4
65		Firozabad T., ...	7,058	6,730	13,788	...	...	...	...
		Total of Towns, ...	95,502	83,865	179,367	75	36	37	48
66		In the 34 Rural Circles, ...	494,060	420,757	914,817	109	87	84	87
		Total of District, ...	589,562	504,622	1,094,184	184	123	121	135
67	Etawah.	Etawah T., ...	16,344	14,205	30,549	14	3	7	16
68		In the 20 Rural Circles, ...	353,584	284,448	638,032	77	67	65	55
		Total of District, ...	369,928	298,653	668,581	91	70	72	71
69	Cawnpore.	Cawnpore T., ...	54,043	44,433	98,476	21	14	17	13
70		In the 26 Rural Circles, ...	565,075	491,888	1,056,963	104	71	105	88
		Total of District, ...	619,118	536,321	1,155,439	125	85	122	101
71	Fatehpur.	Fatehpur T., ...	9,605	9,459	19,064	3	1	3	7
72		In the 22 Rural Circles, ...	335,928	308,823	644,751	234	178	166	121
		Total of District, ...	345,533	318,282	663,815	237	179	169	128
73	Jaunpur.	Jaunpur, ...	17,748	17,255	35,003	1	4	11	9
74		In the 18 Rural Circles, ...	527,952	462,914	990,866	46	33	29	20
		Total of District, ...	545,700	480,169	1,025,869	47	37	40	29
75	Hamirpur.	Rath T., ...	7,094	7,421	14,515	5	3	5	5
76		In the 29 Rural Circles, ...	269,102	245,520	514,622	234	193	136	116
		Total of District, ...	276,196	252,941	529,137	239	196	141	121
77	Banda.	Banda T, ...	13,612	13,030	26,642	26	2	10	8
78		In the 28 Rural Circles, ...	346,153	324,816	670,969	199	124	113	94
		Total of District, ...	359,765	337,846	697,611	225	126	123	102

DIX I.

FORM No. IX.

North-Western Provinces during each month of the year 1874.—(continued.)

5.								6.			7.			8.
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
...	...	12	28	34	18	11	8	56	50	106	1·46	1·32	1·39	56
...	...	...	...	...	1	...	...	...	1	1	...	·12	·05	57
...	...	3	...	...	1	1	...	4	1	5	·75	·19	·48	58
...	...	15	28	34	15	12	8	60	52	112	1·14	1·01	1·08	
53	59	65	113	201	234	207	124	791	533	1,324	1·76	1·44	1·62	59
53	59	80	141	235	249	219	132	851	585	1,436	1·70	1·39	1·56	
...	...	...	...	...	1	...	...	...	2	2	...	·22	·10	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	61
...	...	...	...	...	1	...	...	...	2	2	...	·14	·06	
19	20	25	46	46	27	34	35	183	155	338	·44	·47	·45	62
19	20	25	46	46	28	34	35	183	157	340	·42	·46	·44	
57	47	57	92	62	91	77	51	401	302	703	4·96	4·32	4·66	63
3	1	6	4	4	10	4	5	36	34	70	4·70	4·68	4·69	64
...	...	...	...	...	...	...	...	...	...	...	...	...	...	65
60	48	63	102	66	101	81	56	437	336	773	4·57	4·00	4·30	
85	107	136	198	190	195	145	160	969	624	1,593	1·94	1·48	1·73	66
145	155	199	300	256	296	226	216	1,396	960	2,356	2·36	1·90	2·15	
10	5	2	9	10	20	3	5	60	44	104	3·67	3·09	3·40	67
73	35	73	111	76	96	42	34	485	319	804	1·37	1·12	1·26	68
83	40	75	120	86	116	45	39	545	363	908	1·47	1·21	1·35	
18	3	12	23	13	18	20	7	103	76	179	1·89	1·71	1·81	69
84	84	134	178	184	172	139	151	862	627	1,489	1·50	1·29	1·40	70
102	87	146	196	197	190	159	158	965	713	1,668	1·54	1·32	1·44	
4	1	6	4	4	3	2	9	30	17	47	3·12	1·79	2·46	71
102	78	89	153	177	194	173	176	1,062	779	1,841	3·16	2·52	2·85	72
106	79	95	157	181	197	175	185	1,092	796	1,888	3·16	2·50	2·84	
6	8	9	3	1	3	...	...	35	20	55	1·97	1·15	1·57	73
23	21	51	29	18	26	25	26	233	114	347	·44	·24	·35	74
29	29	60	32	19	29	25	26	268	134	402	·49	·28	·39	
3	3	8	5	...	8	6	7	40	18	58	5·63	2·42	3·99	75
110	111	157	255	235	261	223	213	1,386	858	2,244	5·14	3·49	4·36	76
113	114	165	260	235	269	229	220	1,426	876	2,302	5·16	3·46	4·35	
5	3	5	4	10	9	12	11	53	52	105	3·89	3·99	3·94	77
72	78	102	175	202	171	156	145	989	642	1,631	2·85	1·97	2·43	78
77	81	107	179	212	180	168	156	1,042	694	1,736	2·89	2·05	2·48	

APPEN

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the Rural Circles and Towns of the

1.	2.	3.	4.						
Number.	District.	Names of Rural Circles or Towns.	Population according to Census of 1872.			January.	February.	March.	April.
			Male.	Female.	Total.				
79	ALLAHABAD.	Allahabad T., ...	81,765	64,099	145,864	16	5	11	7
80		In the 33 Rural Circles, ...	633,345	615,036	1,248,381	262	168	192	162
		Total of District, ...	715,110	679,135	1,394,245	278	173	203	169
81	GORAKHPUR.	Gorakhpur T., ...	27,571	24,062	51,633	...	...	1	2
82		In the 35 Rural Circles, ...	1,050,501	917,216	1,967,717	198	180	168	194
		Total of District, ...	1,078,072	941,278	2,019 350	194	180	169	196
83	BASTI.	Total of District containing 27 Circles, ...	784,691	688,303	1,472,994	36	32	34	44
84	AZAMGARH.	Azamgarh, T.	8,916	7,064	15,980	...	2	8	5
85		Mau T., ...	5,794	5,521	11,315	1	2	1	4
86		Total of Towns, ...	14,710	12,585	27,295	1	4	9	9
		In the 27 Rural Circles, ...	811,435	692,680	1,504,115	246	212	251	206
		Total of District, ...	826,145	705,265	1 531,410	247	216	260	215
87	GHAZIPUR.	Ghazipur T., ...	19,889	19,619	39,508	10	4	7	6
88		In the 27 Rural Circles, ...	676,683	629,210	1,205,893	58	49	49	59
		Total of District, ...	696,572	648,829	1,345,401	68	53	56	65
89	BENARES.	Benares T., ...	96,814	90,527	187,341	15	9	9	12
90		Ramnagar T., ...	6,256	5,697	11,953	2	2	6	6
		Total of Towns, ...	103,070	96,224	199,294	17	11	15	18
91		In the 14 Rural Circles, ...	303,274	291,131	594,405	88	64	47	112
		Total of District, ...	406,344	387,355	793,699	105	75	62	130
92	MIRZAPUR.	Mirzapur T., ...	39,814	37,415	77,229	20	14	11	18
93		Chunar T., ...	5,976	6,313	12,289	3	3	3	1
		Total of Towns, ...	45,790	43 728	89,518	23	17	14	19
94		In the 23 Rural Circles, ...	474,706	451,069	925,775	86	90	77	81
		Total of District, ...	520,496	494,797	1,015,293	109	107	91	100
95	JALAUN.	Kalpi T., ...	8,021	7,549	15,570	...	3	...	...
96		Kunch T., ...	7,309	7,139	14,448	2	1	5	2
97		Jalaun T., ...	5,309	4,888	10,197	...	...	...	...
		Total of Towns, ...	20,639	19,576	40,215	2	4	5	2
98		In the 21 Rural Circles, ...	196,968	168,201	364,169	45	54	40	38
		Total of District, ...	216,607	187,777	404,384	47	58	45	40
99	JHANSI.	Mau T., ...	8,205	8,223	16,428	3	2	1	3
100		In the 24 Rural Circles, ...	159,314	141,993	301,307	52	40	40	26
		Total of District, ...	167,519	150,216	317,735	55	42	41	29
101	LALITPUR.	Total of District containing 20 Circles, ...	111,625	101,003	212,628	85	45	53	73
		GRAND TOTAL FOR THE PROVINCE, ...	16,406,833	14,362,223	30,769,056	4,680	3,541	3,653	3,714

DIX I.

FORM No. IX.

North-Western Provinces during each month of the year 1874.—(concluded.)

5.								6			7.			8
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male	Female.	Total.	Male.	Female.	Total.	Number.
6	7	9	12	16	4	11	3	70	37	107	·85	·57	·73	79
148	119	128	194	221	219	255	262	1,296	1,032	2,328	2·04	1·67	1·86	80
154	126	137	204	237	223	266	265	1,366	1,069	2,435	1·91	1·57	1·74	
1	3	1	2	14	3	6	3	24	12	36	·57	·49	·69	81
149	111	155	190	319	313	285	182	1,642	902	2,544	1·56	·98	1·29	82
150	114	156	192	333	316	291	185	1,666	914	2,580	1·54	·97	1·27	
29	40	33	88	78	81	57	27	421	158	579	·53	·22	·39	83
9	5	5	9	8	5	1	...	32	25	57	3·59	3·53	3·57	84
2	2	2	6	4	8	1	7	22	18	40	3·79	3·26	3·53	85
11	7	7	15	12	13	2	7	54	43	97	3·67	3·41	3·55	
152	132	210	215	268	209	165	152	1,462	956	2,418	1·80	1·38	1·60	86
163	139	217	230	280	222	167	159	1,516	999	2,515	1·63	1·41	1·64	
7	12	15	13	16	9	26	14	87	52	139	4·37	2·65	3·52	87
66	55	54	80	59	54	47	33	410	253	663	·60	·40	·50	88
73	67	69	93	75	63	73	47	497	305	802	·71	·47	·59	
22	12	17	13	16	11	20	13	93	77	169	·95	·85	·91	89
...	3	2	1	5	1	3	5	25	11	36	3·99	1·93	3·01	90
22	15	19	14	21	12	23	18	117	88	205	1·13	·91	1·03	
55	55	79	91	93	81	81	47	577	316	893	1·90	1·08	1·50	91
77	70	98	105	114	93	104	65	694	404	1,098	1·70	1·04	1·38	
27	13	7	17	4	3	9	16	80	79	159	2·00	2·11	2·05	92
3	1	5	6	3	2	1	1	19	13	32	3·17	2·05	2·60	93
30	14	12	23	7	5	10	17	89	92	191	2·16	2·10	2·13	
85	55	72	91	121	91	95	66	603	387	1,010	1·31	·85	1·09	94
115	69	84	114	128	96	105	83	722	479	1,201	1·38	·96	1·18	
...	1	...	...	...	2	5	2	7	6	18	·87	·79	·83	95
1	2	...	1	31	38	33	31	76	71	147	10·39	9·94	10·17	96
...	...	3	3	1	...	...	4	4	7	11	·75	1·43	1·08	97
1	3	3	4	32	40	38	37	87	84	171	4·21	4·29	4·25	
39	39	60	141	130	181	165	144	672	404	1,076	3·42	2·40	2·95	98
40	42	63	145	162	221	203	181	759	488	1,247	3·50	2·59	3·08	
2	2	3	27	10	12	9	20	59	35	94	7·19	4·25	5·72	99
28	23	42	35	35	45	39	56	278	183	461	1·74	1·28	1·53	100
30	25	45	62	45	57	48	76	337	218	555	2·01	1·45	1·74	
51	61	76	100	87	97	94	67	529	370	899	4·73	3·66	4·22	101
4,200	3,973	5,140	7,017	7,198	6,691	6,127	4,931	34,571	25,994	60,865	2·12	1·80	1·98	

APPEN

ANNUAL

Statement of BIRTHS and DEATHS registered within the limits of the

1.	2.	3.	4.	5.	6.		
Division.	District.	Number.	Name of Municipality.	Population according to Census of 1872.	*Births.*		
					Male.	Female.	Total.
KUMAUN.	Kumaun, ...	1	Almora, ...	4,125	55	62	117
		2	Naini Tal, ...	3,511	47	29	76
	Tarai, ...	3	Kashipur, ...	13,221	275	201	476
ROHILKHAND.	Bijnor, ...	4	Bijnor, ...	13,066	250	215	465
		5	Chandpur, ...	12,038	251	185	436
		6	Dhampur, ...	6,555	143	129	272
		7	Nagina, ...	19,696	313	201	514
		8	Najibabad, ...	19,656	331	218	549
	Moradabad, ...	9	Moradabad, ...	59,866	1,220	1,032	2,252
		10	Dhanaura, ...	5,287	99	86	185
		11	Chandausi, ...	23,540	463	351	814
		12	Amroha, ...	34,779	713	591	1,304
		13	Sambhal, ...	34,639	788	595	1,383
	Bareilly, ...	14	Bareilly, ...	90,691	1,578	1,245	2,823
		15	Pilibhit, ...	29,840	388	309	697
		16	Bisalpur, ...	9,250	241	208	449
	Shahjahanpur, ...	17	Shahjahanpur, ...	79,487	1,712	1,395	3,107
		18	Tilhar, ...	18,825	536	457	993
	Budaun, ...	19	Budaun, ...	31,227	752	637	1,389
		20	Bilsi, ...	6,115	158	155	313
		21	Ujhani, ...	7,656	182	178	360
		22	Sahaswan, ...	17,961	367	401	768
MEERUT.	Dehra Dun, ...	23	Dehra, ...	15,971	144	100	244
		24	Mussooree, ...	1,464	24	10	34
	Saharanpur, ...	25	Saharanpur, ...	45,019	1,049	812	1,861
		26	Hardwar Union, ...	18,739	363	267	630
		27	Deoband, ...	19,383	433	334	767
	Muzaffarnagar, ...	28	Kairana, ...	17,742	481	351	832
		29	Kandhla, ...	11,026	331	278	609
		30	Muzaffarnagar, ...	10,793	233	208	441
		31	Shamli, ...	9,300	236	181	417
	Meerut, ...	32	Meerut, ...	51,991	1,054	867	1,921
		33	Ghaziabad, ...	10,366	180	118	298
		34	Baraut, ...	8,404	170	138	308
		35	Bagpat, ...	7,367	137	135	272
		36	Shahdara, ...	7,257	183	155	338
		37	Hapur, ...	14,544	293	242	535
		38	Pilkhuwa, ...	5,938	120	131	251
	Bulandshahr, ...	39	Bulandshahr, ...	14,819	423	378	801
		40	Anupshahr, ...	9,336	221	211	432
		41	Sikandrabad, ...	18,342	468	448	916
		42	Khurja, ...	26,858	563	553	1,116
	Aligarh, ...	43	Koil, ...	55,846	978	991	1,969
		44	Hathras, ...	30,900	771	687	1,458
		45	Sikandra Rao, ...	10,814	205	152	357
		46	Atrauli, ...	15,622	306	243	549
		47	Harduaganj, ...	5,205	114	56	170

DIX J.

FORM No. X.

several Municipalities in the North-Western Provinces during the year 1874.

7.	8.			9.	10.	11.
Ratio of births to 1,000 of the population.	*Deaths.*			Ratio of deaths to 1,000 of the population.	Number.	Name of Municipality.
	Male.	Female.	Total.			
28·36	43	61	104	25·21	1	Almora.
21·64	66	33	99	28·19	2	Naini Tal.
36·00	182	136	318	24·05	3	Kashipur.
35·58	168	162	330	25·25	4	Bijnor.
36·23	142	137	279	23·18	5	Chandpur.
41·49	82	68	150	22·88	6	Dhampur.
26·09	136	141	277	14·06	7	Nagina.
27·93	218	164	382	19·43	8	Najibabad.
37·61	874	772	1,646	27·49	9	Moradabad.
34·99	114	98	212	40·09	10	Dhanaura.
34·57	367	283	650	27·61	11	Chandausi.
37·49	545	487	1,032	29·67	12	Amroha.
39·92	578	526	1,104	31·87	13	Sambhal.
31·12	1,248	1,330	2,578	28·42	14	Bareilly.
23·35	320	239	559	18·73	15	Pilibhit.
48·54	135	119	254	27·45	16	Bisalpur.
39·08	958	884	1,842	23·17	17	Shahjahanpur.
52·74	330	344	674	35·80	18	Tilhar.
44·48	503	455	958	30·67	19	Budaon.
51·18	137	97	234	38·26	20	Bilsi.
47·02	129	113	242	31·60	21	Ujhani.
45·01	287	254	541	31·71	22	Sahaswan.
15·27	151	95	246	15·40	23	Dehra.
23·22	29	27	56	38·25	24	Mussooree.
41·33	655	557	1,212	26·92	25	Saharanpur.
33·61	191	113	304	34·78	26	Hardwar Union.
39·57	245	223	468	24·14	27	Deoband.
46·89	300	278	578	32·57	28	Kairana.
55·23	182	181	363	32·92	29	Kandhla.
40·85	152	134	286	26149	30	Muzaffarnagar.
44·83	154	124	278	29·89	31	Shamli.
36·94	1,272	1,277	2,549	49·03	32	Meerut.
28·74	125	130	255	24·59	33	Ghaziabad.
36·64	152	138	290	34·50	34	Baraut.
36·92	181	173	354	48·05	35	Bagpat.
46·57	154	118	272	37·48	36	Shahdara.
36·78	401	406	807	55·48	37	Hapur.
42·27	206	252	458	77·13	38	Pilkhuwa.
54·07	588	670	1,258	84·93	39	Bulandshahr.
46·26	120	98	218	23·35	40	Anupshahr.
49·92	538	608	1,146	62·45	41	Sikandrabad.
41·55	1,324	1,550	2,874	107·00	42	Khurja.
35·25	863	882	1,745	31·24	43	Koil.
47·18	728	668	1,396	45·17	44	Hathras.
33·01	133	122	255	23·58	45	Sikandara Rao.
35·14	280	267	547	35·01	46	Atrauli.
32·66	79	53	132	25·36	47	Harduaganj.

APPEN

ANNUAL

Statement of BIRTHS and DEATHS registered within the limits of the several

1.	2.	3.	4.	5.	6.		
Division.	District.	Number.	Name of Municipality.	Population according to Census of 1872.	*Births.*		
					Male.	Female.	**Total.**
Agra.	Etah, ...	48	Etah, ...	8,044	132	96	228
		49	Soron, ...	13,658	271	245	516
		50	Kasganj, ...	15,764	431	332	763
		51	Marehra, ...	9,214	228	192	420
		52	Aliganj, ...	7,912	154	158	312
	Muttra, ...	53	Muttra, ...	58,840	1,143	979	2,122
		54	Kosi, ...	12,770	278	183	461
		55	Brindaban, ...	21,004	322	329	651
	Farukhabad, ...	56	Fatehgarh *cum* Farukhabad,	75,951	1,115	877	1,992
	Mainpuri, ...	57	Mainpuri, ...	18,601	368	305	673
	Agra, ...	58	Agra, ...	150,677	2,235	1,997	4,232
		59	Jalesar, ...	14,902	369	374	743
		60	Fatehpur Sikri, ...	8,513	121	107	228
		61	Firozabad, ...	13,788	204	174	378
	Etawah, ...	62	Etawah, ...	30,549	628	330	958
		63	Jaswantnagar, ...	5,310	134	109	243
Allahabad.	Cawnpore, ...	64	Cawnpore, ...	98,476	1,057	768	1,825
	Fatehpur, ...	65	Fatehpur, ...	19,064	225	150	375
	Jaunpur, ...	66	Jaunpur, ...	35,003	626	490	1,116
	Banda, ...	67	Banda, ...	26,642	343	258	601
	Allahabad, ...	68	Allahabad, ...	145,864	1,117	829	1,946
Benares.	Gorakhpur, ...	69	Gorakhput, ...	51,633	797	623	1,420
	Azamgarh, ...	70	Azamgarh, ...	15,980	181	165	346
	Ghazipur, ...	71	Ghazipur, ...	39,508	741	621	1,362
		72	Ballia, ...	10,275	168	123	291
	Benares, ...	73	Benares, ...	187,341	2,817	1,999	4,816
	Mirzapur, ...	74	Mirzapur, ...	77,229	1,311	1,188	2,499
		75	Chunar, ...	12,289	259	209	468
Jhansi.	Jalaun, ...	76	Orai, ...	5,158	132	121	253
		77	Kalpi, ...	15,570	221	148	369
		78	Kunch, ...	14,448	292	221	513
	Jhansi, ...	79	Jhansi, ...	1,596	11	11	22
		80	Mau Ranipur, ...	23,123	374	294	668
	Lalitpur, ...	81	Lalitpur, ...	8,976	170	148	318
				2,235,844	39,317	32,079	71,396

DIX J.

FORM No. X.

Municipalities in the North-Western Provinces during the year 1874.—(concluded).

7.	8.			9.	10.	11.
Ratio of births to 1,000 of the population.	*Deaths.*			Ratio of deaths to 1,000 of the population.	Number.	Name of Municipality.
	Male.	Female.	**Total.**			
28·34	95	74	169	21·00	48	Etah.
37·78	194	194	388	28·40	49	Soron.
48·40	321	311	632	40·09	50	Kasganj.
45·58	105	114	219	23·76	51	Marehra.
39·43	121	114	235	29·70	52	Aliganj.
36·06	1,046	945	1,991	33·83	53	Muttra.
36·10	145	150	295	23·10	54	Kosi.
31·04	418	441	859	40·89	55	Brindaban.
26·22	510	512	1,022	13·45	56	Fatehgarh *cum* Farukhabad.
36·18	440	413	853	45·85	57	Mainpuri.
28·08	2,186	1,886	4,072	27·02	58	Agra.
49·85	302	328	630	42·27	59	Jalesar.
26·78	76	61	137	16·09	60	Fatehpur Sikri.
27·41	141	153	294	21·32	61	Firozabad.
31·35	508	499	1,007	32·95	62	Etawah.
45·76	248	233	481	90·58	63	Jaswantnagar.
18·53	1,182	1,199	2,381	24·17	64	Cawnpore.
19·67	187	171	358	18·77	65	Fatehpur.
31·88	485	396	881	25·17	66	Jaunpur.
22·55	362	347	709	26·61	67	Banda.
13·34	902	747	1,649	11·30	68	Allahabad.
27·50	1,151	827	1,978	38·30	69	Gorakhpur.
21·65	228	209	437	27·34	70	Azamgarh.
34·47	539	458	997	25·23	71	Ghazipur.
28·32	137	111	248	24·13	72	Ballia.
25·70	1,797	1,384	3,181	16·98	73	Benares.
32·35	907	908	1,815	23·51	74	Mirzapur.
38·08	244	182	426	34·66	75	Chunar.
49·05	126	82	208	40·32	76	Orai.
23·69	259	135	394	25·30	77	Kalpi.
35·50	261	213	474	32·80	78	Kunch.
13·78	13	4	17	10·65	79	Jhansi.
28·88	242	201	443	19·15	80	Mau Ranipur.
35·42	119	109	228	25·40	81	Lalitpur.
31·91	32,762	30,158	62,920	28·12		

APPEN

FORM

Statement showing the Deaths, registered in all Cantonments

1	2	3	4				CAUSE											
			Class of those who died.															
Number.	Name of Cantonment.	Population.	Hindus.	Muhammadans.	Christian.	Others.	*Cholera.*			*Small-pox.*			*Fever.*			*Bowel complaints.*		
							Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	Chuckrata, ...	1,256	7	17	...	...	...	...	...	...	...	...	6	1	7	4	1	5
2	Landaur, ...	525	20	3	...	6	4	6	10	...	...	...	5	1	6	...	...	...
3	Dehra, ...	1,666	12	1	...	...	...	...	...	...	...	...	7	1	8	2	1	3
4	Roorkee, ...	1,160	8	6	...	16	...	...	...	...	...	...	12	8	20	...	1	1
5	Meerut, ...	26,139	555	251	10	26	...	...	...	1	1	2	372	318	690	3	4	7
6	Naini Tal, ...	445	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
7	Ranikhet, ...	5,500	8	18	19	8	...	...	...	...	...	...	15	7	22	9	...	9
8	Almora, ...	745	11	1	...	...	...	...	...	...	...	...	1	1	2	4	3	7
9	Bareilly, ...	8,548	86	16	2	18	...	...	...	...	...	...	47	34	81	6	2	8
10	Moradabad, ...	1,043	4	...	2	4	...	...	...	...	...	...	1	2	3	2	4	6
11	Shahjahanpur, ...	5,876	56	29	1	...	...	...	...	9	9	17	19	17	36	10	3	13
12	Fatehgarh, ...	4,192	79	11	1	13	...	...	...	1	...	1	47	33	80	2	2	4
13	Agra, ...	18,736	311	48	5	1	1	...	1	...	4	4	97	110	207	32	26	58
14	Muttra, ...	3,149	65	2	...	5	...	...	...	...	1	1	27	28	55	4	2	6
15	Cawnpore, ...	33,840	249	75	...	71	...	...	...	...	...	...	138	95	233	19	11	30
16	Allahabad, ...	6,450	62	22	11	...	...	...	...	1	2	3	21	15	36	7	1	8
17	Banda, ...	1,722	7	6	2	...	...	...	...	...	...	...	2	5	7	...	...	...
18	Jhansi, ...	4,162	19	13	...	...	...	...	...	...	...	...	17	10	27	...	...	...
19	Benares, ...	5,403	56	24	2	...	...	...	...	1	...	1	25	31	56	3	4	7
20	Chunar, ...	144	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
21	Gorakhpur, ...	1,014	18	8	2	6	...	...	...	2	1	3	5	1	6	1	...	1
	Total, ...	131,715	1,626	551	57	170	5	6	11	14	18	32	865	718	1,583	108	65	173

DIX K.

No. XI.

of the North-Western Provinces, during the year 1874.

5																								6								7	
OF DEATH.																								AGE AT TIME OF DEATH.									
INJURIES.																																	
Suicide.			*Wounding.*			*Accident.*			*Snake bite or killed by wild animals.*			Total injuries.	*All other causes.*			*Total deaths.*			*Infants.*			*Boys and girls.*		*Adults.*		*Old people.*			Ratio of deaths per 1,000 of population.	Number.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
...	...	...	1	...	1	4	...	4	...	...	...	5	3	4	7	18	6	24	...	2	1	...	9	3	8	1	19·11	1
...	...	...	...	...	...	1	...	1	...	...	...	1	7	5	12	17	12	29	3	1	2	2	8	4	4	5	55·23	2
...	...	...	1	...	1	...	...	...	...	...	...	1	1	...	1	11	2	13	...	...	...	...	5	2	6	...	7·80	3
...	...	...	...	...	...	...	...	...	...	...	...	...	6	3	9	18	12	30	9	2	2	...	6	3	1	7	25·86	4
1	...	1	...	...	...	3	1	4	...	...	...	5	79	59	138	459	383	842	95	93	77	59	91	104	196	127	32·22	5
...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	2	...	2	1	...	...	...	1	...	...	...	4·49	6
...	...	...	...	...	...	1	...	1	...	...	...	1	18	3	21	43	10	53	8	2	...	...	27	6	8	2	9·68	7
...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	6	6	12	1	1	1	2	3	...	1	3	16·10	8
...	1	1	...	...	...	3	1	4	...	...	...	5	13	10	23	69	48	117	25	12	12	12	11	11	21	13	13·68	9
...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	4	6	10	1	2	1	2	1	2	1	...	9·58	10
...	...	...	...	...	...	1	2	3	2	...	2	5	9	6	15	49	37	86	25	11	11	11	4	8	9	7	14·63	11
...	...	...	...	...	...	1	...	1	1	...	1	2	11	6	17	63	41	104	7	8	11	4	13	15	32	14	24·80	12
1	...	1	...	2	2	3	2	5	2	1	3	11	46	38	84	182	183	365	62	49	32	32	44	52	44	50	19·48	13
...	...	...	...	...	...	2	2	4	...	...	...	4	5	1	6	38	34	72	6	7	6	9	12	11	14	7	22·86	14
...	...	...	...	...	...	3	2	5	...	...	...	5	78	40	118	238	148	386	54	31	30	23	55	53	79	41	11·40	15
...	...	...	...	...	...	...	...	...	...	...	...	...	31	17	48	60	35	95	24	14	8	7	21	9	7	5	14·72	16
...	...	...	...	...	...	...	...	...	...	1	1	1	4	3	7	6	9	15	...	1	...	6	3	2	3	...	8·71	17
...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	5	20	12	32	2	1	2	3	10	5	6	3	7·68	18
...	1	1	...	...	...	3	...	3	...	...	...	4	8	6	14	40	42	82	11	6	8	10	9	14	12	12	15·17	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	6·94	20
...	...	...	...	...	...	...	...	...	...	1	1	1	13	10	23	21	13	34	6	4	3	1	9	7	3	1	33·53	21
2	2	4	2	2	4	25	10	35	6	3	9	52	338	215	553	1,365	1,039	2,404	340	247	227	188	342	311	456	298	18·25	

ORDERS OF GOVERNMENT.

No. 77A. OF 1876.

FROM

THE OFFG. SECRETARY TO GOVERNMENT,
NORTH-WESTERN PROVINCES,

TO

THE SANITARY COMMISSIONER,
NORTH-WESTERN PROVINCES.

DATED NAINI TAL, THE 5TH JUNE, 1876.

SIR,

SANITATION DEPARTMENT.

I AM directed to communicate the following orders on your report for the year 1874.

2. *Delay in reviewing the report.*—It is necessary to explain that the unusual delay which has taken place in circulating this report is in no way due to you. Your original report was received on the 15th July, 1875. It entered however so fully into the question of drainage that the Lieutenant-Governor deemed it advisable to discuss that subject in detail in the review. This necessitated an enquiry in the Irrigation Department, which has taken far longer time than was expected, and which is indeed not yet ended. As the Secretary of State, however, has called for your report for 1874, and as that for 1875 is now under submission, His Honor thinks it better to postpone the consideration of the drainage question, which will be dealt with separately hereafter, and of which on this account no mention will be made in these orders. The Lieutenant-Governor will only observe here that it is his belief that hardly any works have been undertaken in India which possess higher sanitary importance than those which have lately been in progress for the improvement of the drainage in the canal-irrigated districts of these Provinces.

3. *Character of report submitted.*—Your report is painstaking and interesting, and you have discussed your subject so fully as to leave little room for further comment. You have analysed the registration returns and have compared the progress made here with that in other parts of India, illustrating your remarks by a series of maps, which will be of permanent use. Your notes too of inspection of towns in the Doab and Rohilkhand will doubtless serve to shew district officers the points to which their attention should chiefly be directed; and your record of sanitary improvements in towns, in your last chapter, gives a general view, which His Honor hopes may be completed in this year's report, of the fruits of the municipal system.

4. *Registration returns.*—Sir John Strachey does not wish to make any comment on the registration returns, not only because the lapse of time has deprived them of interest, but because he believes with you that they are as a whole utterly untrustworthy. It is waste of time to deal in detail with figures of which you, the compiler, say—"Their scientific value is, I think, almost nothing," (para. 1); and again, "undoubtedly the deaths in many villages of many circles are not re-

corded at all during some months ; for it is a common circumstance to find deaths recorded as having happened in perhaps only one-third of the villages of a given circle, and this for months together," (para. 3). In another place you speak of "the absolute absurdity of the registration as now effected" (para. 21). You say indeed that the results "are reliable enough to indicate with certainty the locality of excessive disease and other facts of wide import likely to be of value towards the better government of the country." But if this be all they do, this result is equally obtained by ordinary observation, basing its conclusions on common report and on facts patent to all. Were there no such thing as mortuary registration, the Government would still be aware that fever desolates Bulandshahr, and could watch the progress of a cholera wave, or the spread of a small-pox epidemic.

5. *Registration from* 1868 *to* 1874.—But although speaking generally it may be said that these figures tell us nothing regarding the public health, which was not known before, the Lieutenant-Governor concurs with you in thinking that they are not on that account to be condemned as worthless. They will lead, it is to be hoped, to something better in future, and even as they stand, they form a record of yearly progress in the way of registration. With the view of shewing district officers their value in this respect, some statements have been drawn up in this office, and are appended to this letter. They give a bird's eye view of the results of registration up to the present time. Birth registration is confined to municipalities, and is there of recent origin, but the percentages of registered deaths from 1868 onwards, as far as can be given, are shewn separately for municipalities, for towns, and for rural circles. It is needless to do more than to call attention to these tables, which speak for themselves, and shew how much more attention has been paid to the subject in some places than others. It is unsatisfactory to find that the majority of the worst municipalities, where the percentage of deaths to population in 1874 does not reach 2 per cent., are head-quarter stations,* where it might have been expected that registration would have been carefully supervised.

*Dehra, Fatehpur Sikri, Farukhabad, Nagina, Najibabad, Pilibhit, Fatehpur, Allahabad, Benares, Jhánsi, and Mau Ránipur.

6. *Registration in towns (not municipalities) and in rural circles.*—As to towns (not municipalities) it will be seen that the registration is in many cases not only not better but worse than in the rural circles. For example, in Shikárpur the percentage is 1·62, while in the rural circles in Bulandshahr it is 3·36; in Kanauj and Kaimganj again it is ·73 and ·92 respectively, while in the rural circles of Farukhabad it is 2·03. There may of course be special reasons in some of these cases ; but it is hard to believe that Magistrates might not greatly improve the returns by paying a very small measure of attention to them.

7. *Improvement of the present system of registration.*—In conclusion, I am to say that if you have any suggestions to make with the view of improving the present system of registration, the Lieutenant-Governor will be glad to give them his consideration ; but it would be more convenient if they were made in a separate communication. From what you say in your twenty-first paragraph, you seem to think that it would be comparatively easy to ensure correct registration even in rural circles, but the Lieutenant-Governor fears that this view is far too sanguine. Any material increase of expenditure is out of the question ; and if it be

meant that the omission to report deaths on the part of the people at large should be made a punishable offence, such a proposal would certainly be altogether disapproved by the Lieutenant-Governor. It has been suggested that when the extended system of Kanúngos is introduced, rural registration should be done through them, the patwáris being bound to make weekly reports to them, receiving perhaps some small remuneration for the duty. If you think after enquiry that any plan of this kind would ensure better results, the Lieutenant-Governor will be prepared to consider it. In Municipalities the prospect is more hopeful. You suggest (para. 35) that the monthly returns should shew the population and deaths in each muhalla or quarter separately and should be sent to you. But this would throw an enormous deal of labour on your office, and I am to enquire if it would not be sufficient if, when you saw a manifestly incorrect quarterly average in any municipality, you were to send for the muhalla returns and examine them. I am to request that with your reply you will submit a draft Circular to municipalities embodying such directions as you would recommend.

I have the honour to be,

SIR,

Your most obedient Servant,

B. W. COLVIN,

Offg. Secretary to Government,

North-Western Provinces.

Statement shewing the percentage of deaths to total population in all the Districts in the North-Western Provinces, from 1868 to 1874.

Number.	District.	Population by Census of 1872.	1868.	1869.	1870.	1871	1872.	1873.	1874.
1	Kumaun ...	4,32,888	·99	1·38	1·37	1·49	2·06	2·57	1·57
2	Garhwál ...	3,10,282	1·48	1·45	1·55	1·74	1·09	1·99	1·95
3	Tarái ...	1,85,647	1·00	1·62	2·85	3·77	3·26	3·04	2·84
4	Bijnor ...	7,37,152	·92	·87	1·57	3·07	3·06	2·07	2·03
5	Moradabad ...	11,22,131	1·38	1·05	1·38	2·76	2·60	2·23	2·13
6	Bareilly ...	15,06,801	1·24	1·88	1·56	2·38	2·66	2·21	1·77
7	Shahjahánpur ...	9,49,471	1·32	1·65	1·61	2·87	4·64	3·06	2·52
8	Budaun ...	9,34,348	·72	1·01	1·05	1·66	1·97	2·16	2·20
9	Dehra Dún ...	1,15,711	1·06	1·16	·85	1·04	1·57	1·65	1·60
10	Saháranpur ...	8,83,782	1·83	2·07	3·28	3·38	2·96	2·38	1·87
11	Muzaffarnagar...	6,90,082	1·58	2·47	3·60	3·24	2·44	2·48	2·27
12	Meerut ...	12,73,914	1·12	1·50	2·11	2·73	3·54	2·58	2·68
13	Bulandshahr ...	9,36,593	1·18	1·71	1·68	2·24	3·22	3·23	3·69
14	Aligarh ...	10,73,108	·97	1·58	1·17	1·61	1·09	2·31	2·16
15	Etah ...	7,03,485	1·22	1·45	1·43	2·01	2·20	2·42	2·21
16	Muttra ...	8,87,355	·97	2·03	1·45	1·46	1·40	1·93	1·60
17	Farukhabad ...	9,18,748	·78	1·41	1·58	1·51	1·82	1·36	1·93
18	Mainpuri ...	7,65,783	1·12	1·60	1·89	2·25	1·81	1·85	2·41
19	Agra ...	10,94,184	1·50	2·60	1·60	1·64	1·76	2·04	1·93
20	Etawáh ...	6,68,581	·65	1·57	1·57	2·22	2·16	1·83	2·88
21	Cawnpore ...	11,55,439	·97	2·31	2·18	2·81	2·81	2·63	2·77
22	Fatehpur ...	6,63,815	1·04	2·57	1·76	1·90	2·09	2·11	1·97
23	Jaunpur ...	10,25,869	1·15	1·41	1·03	1·15	2·40	2·18	1·70
24	Hamirpur ...	5,29,137	1·13	3·52	2·54	2·11	2·41	2·38	2·14
25	Banda ...	6,97,611	1·36	3·33	2·06	1·38	1·67	2·35	2·07
26	Allahabad ...	13,94,245	·63	1·00	1·40	1·38	1·98	1·88	1·69
27	Gorakhpur ...	20,19,350	·65	1·08	·83	1·24	1·82	2·96	2·94
28	Basti ...	14,72,994	·38	·58	·88	1·08	2·36	1·87	1·32
29	Azamgarh ...	15,31,410	·62	1·28	·89	·95	1.31	1·77	2·48
30	Gházipur ...	13,45,401	1·02	1·62	1·30	1·11	1·50	2·33	2·12
31	Benares ...	7,93,699	1·47	1·92	1·36	1·21	1·84	2·66	1·62
32	Mirzapur ...	10,15,293	1·37	1·56	1·13	1·19	2·48	2·59	2·10
33	Jalaun ...	4,04,384	·61	2·31	2·03	2·18	1·78	2·00	2·42
34	Jhánsi ...	3,17,735	1·00	6·39	2·01	2·15	2·24	2·07	1·62
35	Lalitpur ...	2,12,628	1·50	5·57	1·27	1·35	2·17	2·07	2·01
	Total ...	30,769,056	1·03	1·72	1·56	1·88	2·28	2·29	2·18

Statement shewing the percentage of births to total population in Municipalities for 1873 and 1874.

	Municipality.	Population by census of 1872.	1873.	1874.
1	Dehra	16,000	1·80	1·52
2	Mussooree	1,464	1·70	2·32
3	Saháranpur	45,041	4·03	4·13
4	Hardwár Union	21,555	1·91	3·36
5	Deoband	18,976	3·9	3·95
6	Muzaffarnagar	10,793	3·61	4·08
7	Shámli	9,300	2·76	4·48
8	Kándhla	11,026	1·52	5·52
9	Kairána	17,742	...	4·68
10	Meerut	51,991	3·15	3.69
11	Gházíábad	10,366	3·34	2·87
12	Sháhdara	7,257	2·97	4·65
13	Bágpat	7,367	3·57	3·69
14	Baraut	8,404	4·62	3·66
15	Hápur	14,544	3·54	3·67
16	Pilkhuwá	6,239	3·73	4·22
17	Bulandshahr	14,812	4·64	5·40
18	Anupshahr	9,334	5·06	4·62
19	Khurja	26,858	4·81	4·15
20	Sikandarabad	18,349	5·27	4·99
21	Koil	55,846	3·50	3·52
22	Háthras	30,900	3·80	4·71
23	Atrauli	15,622	3·75	3·51
24	Sikandrá Ráo	12,530	2·67	3·30
25	Harduáganj	5,200	3·46	3·26
26	Muttra	63,431	3·52	3·60
27	Kosi	12,776	3·47	3·61
28	Brindaban	21,004	2·68	3·10
29	Agra	1,50,677	2·61	2·80
30	Fatehpur Sikri	8,513	2·31	2·67
31	Firozabad	13,788	2·35	2·74
32	Jalesar	17,622	3·97	4·98
33	Mainpuri	18,601	3·47	3·61
34	Etáwah	30,386	3·96	3·13
35	Jaswantnagar	5,310	5·40	4·57
36	Fatehgarh *cum* Farukhabad	74,225	1·73	2·62
37	Etáh	8,044	2·94	2·83
38	Soron	13,658	3·95	3·77
39	Kásganj	15,764	4·08	4·84
40	Marehra	9,214	2·51	4·55
41	Aliganj	7,912	3·65	3·94

Statement shewing the percentage of births to total population in Municipalities for 1873 *and* 1874.—(concluded.)

	Municipality.	Population by census of 1872.	1873.	1874.
42	Bijnor	13,066	2·86	3·55
43	Chándpur	12,033	5·35	3·62
44	Dhámpur	6,555	4·75	4·14
45	Naginá	19,696	2·78	2·60
46	Najibábad	19,656	3·78	2·79
47	Moradabad	59,570	3·50	3·76
48	Dhanaura	5,281	3·65	3·49
49	Chandausi	23,513	3·48	3·45
50	Amroha	34,896	4·10	3·74
51	Sambhal	34,871	4·43	3·99
52	Budaun	31,227	2·90	4·44
53	Bilsi	6,115	3·38	5·11
54	Ujháni	7,656	2·93	4·70
55	Sahaswán	17,061	3·59	4·50
56	Bareilly	91,410	3·51	3·11
57	Bisalpur	9,335	4·35	4·85
58	Pilibhit	29,840	2·81	2·33
59	Shahjahánpur	79,487	3·07	3·90
60	Tilhar	18,825	4·84	5·27
61	Cawnpore	98,476	2·09	1·85
62	Fatehpur	19,064	1·89	1·96
63	Bánda	27,913	2·84	2·25
64	Allahabad	1,45,864	1·52	1·33
65	Jaunpur	35,003	3·20	3·18
66	Gorakhpur	51,633	2·73	2·75
67	Azamgarh	15,980	2·14	2·16
68	Gházipur	40,000	3·21	3·44
69	Ballia	9,270	3·47	2·83
70	Benares	187,341	2·33	2·57
71	Mirzapur	77,229	3·04	3·23
72	Chunar	12,289	4·21	3·80
73	Jhansi	1,596	1·69	1·37
74	Mau Ránipur	23,123	2·68	2·88
75	Orai	7,237	4·44	4·90
76	Kálpi	16,008	2·80	2·36
77	Kunch	14,540	3·75	3·55
78	Lalitpur	8,976	3·89	3·54
79	Almora	4,125	2·88	2·83
80	Naini Tál	3,511	1·59	2·16
81	Káshipur	13,221	3·28	3·60
	Total	22,55,933	2·13	3·11

Statement showing the percentage of deaths to total population in Municipalities from 1869 to 1874.

Municipality.	Population by Census of 1872.	1869.	1871.	1873.	1874.
1. Dehra ...	16,000	·60	1·60	...	1·54
2. Mussooree ...	1,464	...	3·62	...	3·82
3. Saháranpur ...	45,041	1·15	4·07	4·03	2·69
4. Hardwár Union ...	21,555	·80	3·47	1·61	3·47
5. Deoband ...	18,976	2·05	2·83	2·85	2·41
6. Muzaffarnagar ...	10,793	2·33	·60	2·29	2·64
7. Shámlí ...	9,300	4·90	4·53	2·65	2·98
8. Kandhlá ...	11,026	3·04	3·85	2·17	3·29
9. Kairáná ...	17,742	2·55	·97	1·78	3·25
10. Meerut ...	51,991	6·19	3·56	3·73	4·90
11. Ghaziábad ...	10,366	3·10	2·44	2·94	2·45
12. Sháhdara ...	7,257	3·77	3·57	4·5	3·74
13. Bágpat ...	7,367	2·78	1·53	5·29	4·80
14. Baraut ...	8,404	·97	2·25	5·11	3·45
15. Hápur ...	14,544	1·83	11·44	5·46	5·54
16. Pilkhuwá, ...	6,239	2·00	10·70	5·87	7·71
17. Bulandshahr ...	14,812	...	2·12	4·71	8·49
18. Anupshahr ...	9,334	3·13	1·84	4·38	2·33
19. Khurja ...	26,858	3·42	2 07	5·98	10·7
20. Sikandarábad ...	18,349	3·68	2·74	3·71	6·24
21. Koil ...	55,846	3·50	1·99	3·64	3·12
22. Háthras ...	30,900	2·86	2·06	3·76	4·51
23. Atraulí ...	15,622	2·30	2·25	4·54	3·50
24. Sikandrá Ráo ...	12,530	1·54	2·29	2·53	2·35
25. Harduáganj ...	5,200	3·29	3·29	3·46	2·53
26. Muttra ...	63,431	1·47	2·11	3·49	3·38
27. Kosi ...	12,776	3·61	3·00	3·68	2·31
28. Brindában ...	21,004	4·45	3·20	4·38	4·08
29. Agra ...	1,50,677	3·88	2·86	3·63	2·70
30. Fatehpur Sikri ...	8,513	3·32	2·10	...	1·60
31. Firozábad ...	13,788	2·96	1·70	3·32	2·13
32. Jalesar ...	17,622	4·86	3·97	3·46	4·22
33. Mainpuri ...	18,601	4·51	3·59	3·66	4·58
34. Etawáh ...	30,386	·90	3·65	3·40	3·29
35. Jaswantnagar ...	5,310	...	32·42	9·66	9·05
36. Fatehgarh *cum* Farukhabad	74,225	·68	3·25	2·84	1·34
37. Etah ...	8,044	1·40	2·90	2·64	2·10
38. Soron ...	13,658	3·72	2·84	4·46	2·84
39. Kásganj ...	15,764	1·70	3·37	4·57	4·00
40. Marehra ...	9,214	4·50	1·86	2·76	2·37
41. Aliganj ...	7,912	3·54	2·51	...	2·97
42. Bijnor ...	13,066	·84	1·06	1·90	2·52

Statement showing the percentage of deaths to total population in Municipalities from 1869 *to* 1874—(concluded.)

Municipality.	Population by Census of 1872.	1869.	1871.	1873.	1874.
43. Chándpur ...	12,033	1·26	1·50	3·25	2·31
44. Dhámpur ...	6,555	1·35	2·77	2·31	2·28
45. Naginá ...	19,696	·54	1·63	1·56	1·40
46. Najibábad ...	19,656	·93	2·66	2·34	1·94
47. Moradabad ...	59,570	·55	1·04	2·91	2·74
48. Dhanaura ...	5,281	1·53	1·81	3·82	4·00
49. Chandausi ...	23,513	2 06	1·61	3·64	2·76
50. Amrohá ...	34,896	1·13	6·42	3·13	2·96
51. Sambhal ...	34,871	·91	9·51	3·68	3·18
52. Budaun ...	31,227	2·24	1·74	1·41	3·06
53. Bilsi ...	6,115	·99	1·83	1·89	3·82
54. Ujháni, ...	7,656	1·22	2·62	...	3·16
55. Sahaswán ...	17,061	1·17	8 40	4·15	3·17
56. Bareilly ...	91,410	2·05	2·60	3·62	2·84
57. Bisalpur ...	9,335	1·79	38·75	6·96	2·74
58. Pilibhit ...	29,840	1·25	7·24	2·90	1·87
59. Shahjahánpur ...	79,487	1·16	1·96	2·46	2·31
60. Tilhar ...	18,825	·86	9·47	...	3·58
61. Cawnpore ...	98,476	2·50	3·58	3·86	2·41
62. Fatehpur ...	19,064	·80	1·74	3·98	1·87
63. Banda ...	27,913	5·37	1·77	3·90	2·66
64. Allahabad ...	1,45,864	1·68	1·56	1·07	1·13
65. Jaunpur ...	35,003	3·62	2·11	4·40	2·51
66. Gorakhpur ...	51,633	2·93	1·46	4·23	3·83
67. Azamgarh ..	15,980	·76	·93	3·56	2·73
68. Gházipur ...	40,000	1·68	2·13	2·9	2·52
69. Ballia ...	9,270	...	14·40	...	2·41
70. Benares ...	1,87,341	1·26	1·39	2·43	1·69
71. Mirzapur ...	77,229	·28	2·25	3·55	2·35
72. Chunar ...	12,289	4·87	12·85	4·98	3·46
73. Jhánsi ...	1,596	...	4·51	...	1·06
74. Mau Ránipur ...	23,123	3·27	2·01	1·82	1·91
75. Orai ...	7,237	6·60	2·90	2·87	4·03
76. Kálpi ...	16,008	5·87	3·26	3·40	2·53
77. Kunch ..	14,540	6·57	1·91	1·93	3·28
78. Lalitpur ...	8,976	5·17	2·89	...	2·54
79. Almora ...	4,125	1·50	80·34	...	2·52
80. Naini Tal ...	3,511	...	2·73	3·36	2·81
81. Kashipur ...	13,221	...	5·43	4·39	2·40
Total, ...	22,55,933	2·26	3·23	3·13	2·78

Statement shewing the percentage of deaths to total population in Towns (not municipalities) and Rural Circles from 1868 *to* 1874.

District Circles and Towns.	Population by census for 1872.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
Kumaun.								
8 Rural circles ...	432,888	·99	1·38	1·37	1·52	2·06	2.57	1·57
Garhwál.								
12 Rural circles ...	310,282	1·48	1·43	1·55	1·74	1·88	1·99	1·95
Turái.								
9 Rural circles ...	172,426	1·08	1·74	3·08	3·40	3·22	2 93	2·88
Bijnor.								
Sherkot T. ...	12,586	1·01	·60	1·73	3·37	2·81	1·82	2·16
27 Rural circles ...	660,115		·96		3·13		2·06	2·36
Moradabad.								
22 Rural circles ...	969,307	1·51	1·22	1·60	3·09	2·38	2·07	2·01
Bareilly.								
Aonla T. ...	11,153	1·35	1·80	1·69	12·29	2·68	8·47	10·3
27 Rural circles ...	1,375,117		2·05		1·90		2·05	1·63
Shahjáhanpur.								
25 Rural circles ...	869,984	1·45	1·80	1·76	2·78	4·56	3·12	2·54
Budaun.								
18 Rural circles ...	886,060	·76	1·07	1·06	1·67	1·91	2·14	2·15
Dehra Dún.								
6 Rural circles ...	115,711	1·06	1·16	·95	1·04	1·24	1·65	1·60
Saháranpur.								
Gangoh T. ...	10,982	1·97	2·59	3·54	5·78	2·48	3·51	3·17
Roorkee T. ...	10,778		2·15		8·72		1·58	1·41
22 Rural circles ...	797,620		2·23		3·04		2·27	1·80
Muzaffarnagar.								
25 Rural circles ...	650,521	1·68	2·62	3·82	3·08	2·32	2·51	2·22
Meerut.								
Sirdhana T. ...	12,469	1·18	2·04	2·22	2·57	3·01	1·77	2·96
40 Rural circles ...	1,194,910		1·59				2·50	2·54
Bulandshahr.								
Shikarpur T. ...	11,338	1·26	2·90	1·91	1·41	3·08	2·97	1·62
29 Rural circles ..	865,236		1·82		2·09		3·11	3·36
Aligarh.								
28 Rural circles ...	959,926	1·08	1·76	1·31	1·49	1·68	2·14	2·00
Etah.								
18 Rural circles ...	674,063	1·27	1·51	1·49	1·84	1·98	2·33	2·19
Muttra.								
27 Rural circles ...	790,150	1·09	2·28	1·63	1·25	1·11	1·64	1·40
Farukhabad.								
Kanauj T. ...	17,093	·85	1·90	1·73	2·31	1·11	1·88	·73
Kaimganj T. ...	10,323		·65		8·69		14·44	·92
26 Rural circles ...	815,381		1·54		·97		1·06	2·03

Statement shewing the percentage of deaths to total population in Towns (not municipalities) and Rural Circles from 1868 *to* 1874.—(concluded.)

District Circles and Towns.	Population by census for 1872.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
Mainpuri								
Shekoabad T. ...	10,069	1·15	1·65	1·93	2·71	1·68	5·19	3·54
17 Rural circles ...	737,113				2·17		1·76	2·34
Agra.								
35 Rural circles ...	914,817	1·79	3·11	1·92	1·41	1·35	1·79	1·77
Etáwah.								
20 Rural circles ...	638,032	·68	1·65	1·64	2·08	2·01	1·75	2·86
Cawnpore.								
26 Rural circles ...	1,056,963	1·06	2·52	2·38	2·13	2·56	2·51	2·80
Fatehpur.								
22 Rural circles ...	644,751	1·07	2·65	1·82	1·86	2·01	2·05	1·97
Jaunpur.								
18 Rural circles ...	990,886	1·18	1·46	1·17	1·08	2·30	2·10	1·67
Hamirpur.								
Rath T. ...	14,515	1·13	1·61	2·54	1·45	2·15	2·62	2·56
29 Rural circles ...	514,622		3·58		2·05		2·37	2·13
Banda.								
28 Rural circles ...	670,969	1·41	3·96	2·14	1·33	1·60	2·28	2·05
Allahabad.								
33 Rural circles ...	1,248,381	·706	1·11	1·57	1·35	2·05	1·98	1·75
Gorakhpur.								
35 Rural circles ...	1,967,717	·66	1·11	·86	1·22	1·76	2·93	2·92
Basti.								
27 Rural circles ...	1,472,994	·38	·58	·88	1·08	2·36	1·87	1·32
Azamgarh.								
Mau T. ...	11,315	·62	·73	·90	5·66	1·29	2·85	3·79
27 Rural circles ...	1,504,115		1·30		·90		1·74	2·47
Ghazipur.								
27 Rural circles ...	1,305,893	1·06	1·67	1·34	·62	1·57	2·30	21·08
Benares.								
Ramnagar T. ...	11,953	1·93	1·34	1·78	1·78	1·90	2·10	1·64
14 Rural circles ...	594,405		2·54		1·14		2·74	1·60
Mirzapur.								
23 Rural circles ...	925,775	1·51	1·71	1·24	·95	1·66	2·48	2·06
Jalaun.								
Jalaun T. ...	10,197	·66	5·05	2·17	2·76	1·65	2·24	3·18
21 Rural circles ...	364,169		2·42		2·08		1·93	2·36
Jhánsi.								
24 Rural circles ...	301,307	1·05	6·74	2·12	1·67	1·74	2·05	1·61
Lalitpur.								
20 Rural circles ...	212,628	1·50	5·57	1·27	1·14	2·00	2·07	2·01
Total ...	2,8760,005	1·11	1·84	1·67	1·71	2·10	2·22	2·14

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TABLE OF CONTENTS.

CHAPTER I.

Mortuary Statistics.

	Page.
Mortuary registration for 1875	1
Want of trustworthy agency for the report to the Registrar of deaths	*ib.*
Recent orders of Government that in future mortuary figures shall be published only in the forms of summaries	1 & 2
Value of life in Europe in comparison to the value of life in India	2
Neglect of registration in certain centres of population in North-Western Provinces ...	2 & 3
Registration evidently neglected in Allahabad and Basti districts	*ib.*
Noteworthy neglect of registration in Rural Circles than Towns	4
Partial success to record the number of villages in every Rural Circle	*ib.*
Necessity to divide the country into groups of villages for the correct registration of deaths	*ib.*
Registration of deaths in 81 Municipal Towns	5
Ratio of deaths in comparison with those of other parts of India	5
Excessive mortality recorded in the towns of Doab, and a sketch map showing those towns	6
Class of those who died	*ib.*
Age of those who died	*ib.*
Sex of those who died	7
Registration of births and deaths in 81 municipal towns	*ib.*
Neglect of birth and death registration in Allahabad municipality	8
Neglect of birth registration in certain municipalities	*ib.*
Average ratio of England and Wales of birth and death-rates	*ib.*
Concerning registration of deaths in Cantonments	*ib.*
Concerning receipt date of monthly mortuary returns in the Sanitary Commissioner's office	8 & 9

CHAPTER II.

History of Mortality and Chief Diseases.

	Page.
Table I.—Of mortality for the 11 years, 1865 to 1875	10
„ II.—Relative mortality of the Cold, Hot, and Rainy seasons ...	*ib.*
„ III.—Deaths from zymotic causes according to seasons ...	11
„ IV.—Showing districts of greatest mortality from fever, with remarks, and map of the Doab ..	*ib.*
„ V.—Annual mortality from Cholera in the North-Western Provinces for 11 years	12
„ VI.—Showing registered mortality from Cholera in all districts of the North-Western Provinces for 11 years	13
The widespread area showing prevalence of cholera from east to west	14
Concerning cholera map of the North-Western Provinces, and the necessity of a competent mappist required for three months...	15
Table VIII.—Monthly registered mortality from Cholera for 1875 ...	16 & 17
„ IX.—Showing registered mortality from small-pox from 1865 to 1875, and notes on it ...	17
Advantage of vaccination in Kumaun, Garhwál, and Dehra Dún districts	18
Table X.—Showing districts of greatest mortality from Bowel Complaints ...	19
Notes concerning Injuries and Accidents ...	*ib.*
Table XI.—Showing districts in which Suicide was most frequent in 1875,	20
„ XII.—Showing districts in which deaths by Wounds were most frequent in 1875	*ib.*
„ XIII.—Showing districts of greatest mortality from snake-bite and attacks of wild beasts ...	21

CHAPTER III.

Meteorology of the Year, and the General Condition of the People.

	Page.
Table I.—Mean atmospheric pressure, &c ...	22
Notes on the above and concerning rainfall,	23
Table II—distribution of the rainfall in 1874 and 1875	24
Concerning liberal and lessened supply of rain in certain districts	25
Table III.—Average price of common food articles during past six years,	25
„ IV.—showing price of grains in each district during 1875 ...	26
Concerning the scarcity and cheapness of grains in the Benares and Allahabad Divisions	27

CHAPTER IV.

Inspection of Sanitary Commissioner.

		Page.
Inspection Report on the Towns of Chándpur, Bijnor, Najíbabad, Nagína, and Dhámpur	...	28 to 30
Ditto Moradabad, Amroha, Chandausi, and Sambhal	...	30 to 33
Ditto Budaun, Bilsi, Ujháni, and Sahaswán	...	32 to 35
Ditto Bareilly, Pilibhít, Bísalpur,	...	36 & 37
Ditto Sháhjahánpur and Tilhar	...	38
Ditto Fatehgarh	...	39
Ditto Mainpuri	...	40
Ditto Firozabad	...	41
Concerning the Agra sanitary arrangements during the visit of His Royal Highness the Prince of Wales	...	ib.
Rules prescribed for the arrangement of the camps of Mábarájahs and Native Chiefs	...	42
Absence of any epidemic disease during the time His Royal Highness was at Agra	...	43
Inspection report of Agra, Fatehabad, Pinahat, Bah and Járar	...	44 to 46
Ditto Etáwah, and Auraiya	...	47
Ditto Jalaun, Kúnch, Orai, Kálpi, and Karára	...	48 to 51

CHAPTER V.

Sanitary Improvements of the Year.

	Page.
List of drainage works effected or in course of completion in connection with the Ganges and Jumna Canal, ...	52
The improvement in the death ratio at Khúrja through perfection of Khúrja drainage scheme	52 & 53
Unwholesome condition of the Sengar Nadí,	53
Drainage at Saháranpur: Meerut also requires attention	ib.
Unwholesome condition of the East Káli Nadi at Bulandshahr...	ib.
Concerning some improvements made in Meerut by Mr. Webster	54
Of memorandum by Dr. Moir, attached to the report	ib.
Improvement of "Sarwat drainage cut," in Muzaffarnagar	ib.
The considerable sum expended in improving the drainage of Jalaun town ...	55
Improvement of the Tarái and Káshipur towns	ib.
Important sanitary improvement effected in Sambhal town	ib.
The new surface drains constructed at Cawnpore	ib.
In towns of Hamírpur district some improvements have been effected	ib.
Improvements made in the Gorakhpur excavation which neighbour the jail ...	ib.
Construction of two new roadways in Benares city	ib.
Certain opinions by the Sanitary Commissioner, regarding improvements of general importance and advantage to the inhabitants	56 & 57
Report on fever in the Meerut district by Dr. W. Moir, Civil Surgeon, Meerut ...	58 to 66

APPENDICES.

			Page.
Annual Form No.	I.	Deaths registered in different districts of the North-Western Provinces during the year 1875	i to iii.
Ditto	II.	Deaths registered from All Causes in the several districts of the North-Western Provinces during the year 1875 ...	iv & v.
Ditto	III.	Deaths registered from different causes in the districts of the North-Western Provinces during the year 1875 .	vi to ix.
Ditto	IV.	Deaths registered according to Age in the North-Western Provinces during the year 1875	x.
Ditto	V.	Deaths registered according to Classes in the North-Western Provinces during the year 1875	xi.
Ditto	VI.	Deaths registered from Cholera in the districts of the North Western Provinces during the year 1875	xii & xiii.
Ditto	VII.	Deaths registered from Small-pox in the North-Western Provinces during the year 1875	xiv & xv.
Ditto	VIII.	Deaths registered from fever in the North-Western Provinces during the year 1875	xvi & xvii.
Ditto	IX.	Deaths registered from Bowel Complaints in the North-Western Provinces during the year 1875	xviii & xix.
Ditto	X.	Births and Deaths registered in the Municipalities in the North-Western Provinces during 1875	xx to xxiii.
Ditto	XI.	Deaths registered in the Cantonments of the North-Western Provinces during 1875	xxiv & xxv.

GOVT 1876 N.W.P.

1875.

EIGHTH ANNUAL REPORT OF THE SANITARY COMMISSIONER OF THE NORTH-WESTERN PROVINCES.

CHAPTER I.

MORTUARY STATISTICS.

DURING the year 1875 mortuary registration continued to be effected by the agency of the police upon the system established in 1870.

2. During the past year I have inspected the mortuary registers at many of the police stations of the Rohilkhand and Bundlekhand districts, through which my journeys of inspection were made, and almost without exception the registers were found to be carefully written up to date, the facts properly entered. In some instances the totals were found incorrectly added, but not to such extent as to effect in any appreciable degree the ratios of deaths to population. And it may be accepted as a fact that the figures of the mortuary returns correctly represent the number of deaths reported at the police station. The cause of the evident incorrectness of the figures representing the total deaths of the province, is the want of trustworthy agency for the report to the Registrars of deaths which have happened. And this want is specially noticeable in certain districts.

3. It would I think not be difficult to prove that in every district deaths happen which are not registered, but in some districts, and noticeably in Basti and Allahabad, a very great many, probably almost half the deaths which have happened, have not been recorded. Of course this can be only due to one cause, and it may be fairly asked how it can happen that, with the same agency at work, the registration shows a ratio of 26·34 deaths per 1,000 of population in the Meerut district, and only 13·59 in the Basti district, and 16·65 in the Allahabad district, unless on account of the varying interest taken in this important work by those officers who have the power to coerce the chaukidars into obedience, as regards the faithful report of all deaths that happen.

4. It is in that our system fails, and the failure is most conspicuous as regards the rural circles; circles composed of many villages, in some instances more than 200, reporting to one centre. The ratios, 31·70 to 1,000 of deaths in all town circles, against 21·07 in all rural circles for the past year, are eloquent on this point; for it cannot be true that an average of one-third more deaths occur amongst the urban populations than amongst the rural.

5. We aim at recording the deaths throughout the whole province, and should, I think, persevere in that endeavour; of course, I earnestly desire absolute correctness of record, so that a true and lasting value might attach to the silent work of compilation which goes on in this office. The work is not light, as those acquainted with this kind of work will readily understand, when I say that monthly returns are received from 879 circles. But recognized and expected inaccuracy in the figures dealt with, robs the work of almost all the interest which might attach to it. This being so, I need scarcely say that the recent orders of the Government, to the effect that in my

future annual reports the mortuary figures shall be published only in the forms of summaries, have been received with much pleasure. I have always held the opinion that it was not wise, either as a matter of taste or economy, to spread out the figures over many pages of valuable paper. I would not do that even if the figures correctly expressed the facts, because pages and pages of figures are hateful to the general public and official mind. In the appendix the mortuary statements for this year will be found as district summaries of one page for each fact illustrated; exactly as printed in my report for 1872. The figures, as recorded for each circle, have been compiled, and lie in my office for the information of all concerned.

6. The total number of deaths registered during 1875 was 671,491 amongst a population of 30,769,056. The resulting value of life, as computable from these figures is 45·8 years. As compared with the ascertained value of life in Europe, about 35 years, and Mr. Plowden's estimate of the value of life in India, about 31 years. This result is very unsatisfactory.

Yet studying the returns as I have to do, here and there a ray of hope appears that as years pass, the custom of reporting deaths at the police office may become a fixed habit; for the number of the districts showing a fair amount of success in regard to the registration of deaths slowly increases.

7. During the past year in three districts, Tarái, Bulandshahr, and Lalitpur, with a total population of 1,334,868, the total of deaths registered was 42,949, showing an average life value of 31 years amongst the people of those districts.

8. In the 14 districts, Bijnor, Sháhjahánpur, Budaun, Dehra, Saháranpur, Muzaffarnagar, Meerut, Aligarh, Etah, Mainpuri, Agra, Cawnpore, Hamírpur, and Jalaun, with a total population of 11,309,980, the total of deaths registered during the year was 279,167, showing an average life value of 40 years amongst the people of those districts

9. In the 16 districts, Kumaun, Garhwál, Moradabad, Bareilly, Muttra, Farukhabad, Etáwah, Fatehpur, Jaunpur, Bánda, Gorakhpur, Azamgarh, Benares, Gházipur, Mirzapur, and Jhánsi, with a total population of 15,256,969, the total of deaths registered was 306,129, showing an average life value of 49 years amongst the people of those districts.

10. In two districts, Allahabad and Basti, with a total population of 2,867,239, the total of deaths registered was 43,246, showing an average life value of 66 years amongst the people of those districts.

11. It appears then, that for the past year, absolutely absurd returns have been received from only two districts, Allahabad and Basti, and in hopes that the attention of the officers concerned may be directed to this matter, with resulting improvement in the registration, I give below the result received from those districts, as regards the mortuary circles in which the registration was most neglected.

Allahabad District.

Mortuary circle.	Population.	Deaths registered in 1875.	Ratio to 1,000 living.	Expectation of life in years.
Allahabad town circle	145,864	2,037	13·9	71
Rural circles.				
Kurrah	27,797	338	12·1	82
Saini	64,160	562	8·7	114
Soraon	65,769	604	9·1	108
Phúlpur	77,370	1,069	13·8	72
Sarai Mumraiz	43,593	656	15·0	66
Muratganj	36,920	574	15·5	64
Allahabad	14,705	155	10·5	94
Jhúsi	32,154	356	11·0	90

Basti District.

Mortuary circle.	Population.	Deaths registered in 1875.	Ratio to 1,000 living.	Expectation of life in years.
Rural circles.				
Dehburia	25,917	317	12·2	81
Chilliah	77,352	1,062	13·7	73
Tharauli	49,247	507	10·3	97
Láutan	30,286	344	11 3	88
Belwá	45,458	406	8·9	118
Dumariagacj	97,312	1,109	11·4	87
Bansi	81,927	563	6·8	145
Majhera	52,911	551	10 4	101
Dudhára	58,767	737	12·5	79
Mhendawal	61,454	536	8·7	114
Paikaulia	58,743	741	12·6	79
Gaighát	78,913	949	12 0	83

12. Concerning the 16 districts named in para. 9 it is well to mention that the evident inaccuracy which taints the total result, is due to neglect of registration in a few circles only of every district. I give the list, for the information of those who can compel a more correct registration in the circles mentioned.

District.	Mortuary circle.	Population.	Deaths registered in 1875.	Ratio to 1,000 living.
Garhwál ...	Badhan	21,454	308	14·3
	Mulla Salan	38,718	548	14·1
Moradabad ...	Bachraon	52,115	560	10·7
	Sambhal	46,974	664	14·1
Bareilly ...	Neoraya	44,225	551	12·3
	Háfizganj	76,587	972	12·7
Muttra ...	Jait	22,985	316	13·7
	Muttra (rural)	18,137	226	12·4
Farukhabad ...	Jalálabad	30,510	433	14 2
	Mirán-ki-Sarai	69,285	968	13·9
	Saurikh	65,529	918	14·0
Etáwah ...	Kuderkot	21,571	314	14·5
	Bakewar	60,637	880	14·5
	Hussainganj	48,376	677	14·0
Fatehpur ...	Jaffarganj	23,416	266	11·3
	Gházipur	38,878	561	14·4
Jaunpur ...	Khutahan	50,107	774	13·4
	Laksha	60,940	695	11·4
Bánda ...	Marka	18,061	280	15·5
	Rájapur	29,963	455	15·1
	Pahári	34,468	524	15·2
Gorakhpur ...	Sinra	67,765	1,007	14 8
	Tarkulwa	83,956	1,069	12·7
	Deowa	70,077	911	12·9
	Ghanti	95,464	1,227	12·8
Azamgarh ...	Dohari ghát	30,139	437	14·5
	Abraula ghát	68,075	907	13·3
	Sagari	73,504	1,013	13·8
	Máu	69,425	1,034	14 9
	Khandhárapur	47,616	710	14·9
	Jahánaganj	57,170	593	10·3
Benares ...	Cholapur	53,893	615	11·4
	Mirzamurád	89,765	1,195	13·3
Gházipur ...	Kásimabad	61,054	829	13·5
	Muhammadabád	91,674	1,044	11 3
Mirzapur ...	Mirzapur (rural)	103,174	1,561	15·1
	Dádhi	22,185	325	14·6
Jhánsi ...	Jhánsi (rural)	9,766	93	9·5
	Baghera	15,201	244	16·0
	Pandwáha	22,348	362	16·1
	Total ...	2,006,180	27,068	13·4

13. I have shortened the list to the utmost possible extent, and have entered in it the names of those circles only in which the registration has been quite flagrantly neglected. The total figures of the list are eloquent on this point. It might be possible that in some one circle of the list the ratio of deaths may have been below the average, but it cannot be possible that amongst a population of 2,006,180 persons, the

death-rate should fall as low as 13·4 per 1,000 per annum, for if that was accepted as the average ratio of all years, it would result that every person of the population concerned might expect to live 74 years. I think, if the Collectors of the districts mentioned would note the circles named, and issue orders to the effect that the evident neglect of registration in those circles must not continue, the result would be favourable.

14. In paragraph 6, I have stated that the result of the registration for the year 1875 shows an expectation of life of 45·8 years for the whole province. Comparing the registration in the rural and town circles we have the following results.

During 1875 in the 813 rural circles, with a population of 28,605,214, the total of deaths registered was 602,897, giving a ratio of 21·07 per 1,000, and showing an expectation of life of 47·4 years. In the 66 town circles (that is in towns of more than 10,000 inhabitants) with a population of 2,163,842, the total of deaths registered was 68,594, giving a ratio of 31·70 per 1,000, and showing an expectation of life of 31·5 years.

This very great difference is noteworthy. It is probably true that the average of deaths in large towns is greater than the average in the country, but it cannot possibly be so much greater as these figures tend to show; and I trust every reasonable endeavour will be made to improve the registration in the rural circles.

During the past year, I have endeavoured to record the number of villages from which, in every rural circle, deaths were registered during the year, and as I have already recorded the number of villages in each rural circle, I hoped it might be possible to determine eventually the centres of rural population in which death registration is habitually neglected. I regret to say that my endeavour in this direction has resulted in only a very partial success. It was found too exacting to require of the police officers any increase of attention or labour, in addition to that already given, without remuneration, in the cause of death registration, and I have had to rest contented with information on this point from a few districts in which the record was undertaken voluntarily.

15. It is very far from my desire to urge expenditure, as against the better judgment of Government, for the more correct registration of mortality; but I cannot err in recording the fact, that quite unpaid service for this work will not produce results able to bear close investigation.

And I think it is certain that, although for the purposes of police administration, the existing police or thána circles may not be too large, they are in very many instances too large for mortuary registration circles.

I believe, for the correct registration of the deaths, it would be necessary to divide the country into groups of villages, the central village of every group being the place of registration for that group. Omitting Agra, for which I have not yet correct particulars, there are 87,411 villages in the 813 existing rural mortuary circles. Including Agra, there are probably 90,000 villages, an average of 110 villages to each circle; but, as may be supposed, the average varies in different districts. For example, in Garhwál the average is 420 villages to each circle, in Gorakhpur 250 villages, in Basti 314 villages, in Gházipur 236 villages, Allahabad 132 villages: while in Tarái the average is 74, in Muzaffarnagar 48, in Meerut 47, Bulandshahr 80, and in Hamírpur 37 villages to each circle.

16. I do not say it can be due only to this difference of average, but it is a general fact that mortuary registration, as shown in the existing mortuary papers, is best effected in the five districts last mentioned, and worst effected in the five districts

first mentioned; and I think this difference of number in the centres of population reporting to one office, accounts, in a great measure, for the difference in result.

And this view is further strengthened by the results of the registration in the town circles, which, as regards the year 1875, has resulted in recording a mortality almost identical with that computed by Mr. Plowden as the probable annual death-rate in India. And again, the registration in the 81 municipal towns, which is recorded separately, and includes almost all the town circles before mentioned, and many of less than 10,000 inhabitants, shows a ratio of 32·11 to 1,000 living in those towns, and a life expectation of 31·1 years amongst a population of 2,236,844 (see Form X. in the appendix). In the record last-mentioned, indeed, there is much to show that, under a system of more localised record, the death-rate might be proved to be even higher amongst the population in this province. For selecting a list of 32 towns with a total population of 548,402, we find the total of deaths registered therein 25,296 in 1875, which gives a ratio of 46·1 per 1,000, and shows an expectation of life of 21·7 years.

Referring again to the group of towns specially mentioned in my report for 1874, namely, Meerut, Bágpat, Hápur, Pilkhuwa, Bulandshahr, Sikandarabad, Khúrja, and Háthras, with a total population, according to the census of 1872, of 170,759, we find the total deaths registered therein 8,263, giving a ratio of 48·3 per 1,000, and showing an expectation of life of 20·7 years. In 1874 the ratio was 63·66 per 1,000, and, so far as the mortuary registration can be trusted, the evidence favours the opinion that the health of the people generally has improved in the country where these towns are situated, and where fever disease prevailed so fatally in 1874.

17. The following table will serve to show the relative amount of success as yet achieved in regard to mortuary registration in the several provinces of India:—

Province.	*Death ratios per 1,000 of population.*					
	1874.			1875.		
	Rural circles.	Town circles.	Cantonment circles.	Rural circles.	Town circles.	Cantonment circles.
Bombay	16·35	23·47	20 50			
Madras	17 10	28 47	...			
Panjáb	16 82	28·90	...			
Central Provinces ...	23 34	25·04	...			
Oudh	11 12	13·40	...			
British Burmah ...	11·67	18·53	...			
North-Western Provinces.	...	...	...	21·07	31·70	21 74

I think the registration in British Burmah and Oudh cannot yet be effected with any approach to accuracy, but I add the statements for those provinces to perfect the list. The statements for Bengal I cannot add, as the sanitary report for 1874 has not yet reached me. In 1873 the death ratio in Bengal town circles was 24·04, and in the rural circles 7·35—of course an absurd result as regards the latter. The recorded mortality in Calcutta city alone for 1873, namely, 24·46, is a valuable addition to our knowledge in this important enquiry, for the registration in Calcutta is probably correctly effected, and the result of registration in selected areas of the same province, containing a population of 2,662,513, should be quoted. The deaths registered numbered 66,687, the resulting ratio being 23·1 per 1,000 of population.

18. Compared with the figures above quoted, and taking all the figures to be of equal value, the registered mortality in the town circles of the North-Western Provinces appears excessive. This may be due to the registration of deaths occurring in outlying villages having been registered in the towns, while those village populations

are not included in the statement of the town population ; or it may be due to the fact that mortality has been excessive in the towns, as the result of excessive disease. I think the latter cause may account in great measure for the excessive mortality recorded. The town circles in which this excessive mortality has been recorded are those situated in the Doab. I append a sketch map showing the situation of these towns, and the ratio of mortality recorded in each for the year 1875. The map will serve to show that these towns are situated, as a rule, either in the midst of country irrigated from canals, or on rivers which remove the excessive waters of irrigation operations. The excessive moisture which surrounds or neighbours these towns may account for the excessive mortality ; or it may be due to an epidemic of malarious fever now afflicting the people of the central Doab : opinions differ. This subject will be more fully considered in Chapter II.

Class of those who died.

19. The following table shows the deaths and ratios recorded during the past year as having happened amongst the Hindús, Muhammadans, and Native Christians :—

Class.	Population in 1872.	Deaths registered.	Deaths to 1,000 living.	Value of life in years.
Hindús	26,569,068	578,915	21.78	46·0
Muhammadans	4,189,348	92,359	22·04	45·3
Native Christians	10,610	217	20·39	49·0

The figures witness to a careful record during 1875 of the class of those whose deaths were registered.

The improvement in this respect is especially marked in regard to the deaths of Christians, which must have been recorded in better proportion than has ever yet been attained to ; yet it is certain many deaths of Native Christians still remain unrecorded.

Age of those who died.

20. The following statement shows the deaths and ratios recorded during the past year at the different periods of life involved :—

Period of life.	*Population in 1872.*			*Deaths registered.*			*Deaths to 1,000 living.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Infants (less than 1 year)	734,787	679,338	1,114,125	81,068	68,512	149,580	110·3	100·8	105·7
Children (1 to 12) ...	4,360,923	3,970,931	8,821,854	85,008	64,940	149,948	19·5	16·3	16·9
Adults (12 to 40) ...	8,188,671	7,238,757	15,427,428	87,847	70,311	158,158	10·7	9·7	10·2
Old people (above 40) ...	2,628,482	2,472,658	5,101,140	119,659	94,146	213,805	45·5	38·0	41·9
Total ...	15,402,863	14,361,684	30,764,547*	373,582	297,909	671,491	22·76	20·74	21·82

The recorded mortality in infancy and childhood appears great, but I think the ratios suffice to show that the age at death has been registered with some approach to correctness.

To judge in this matter it is necessary to establish a standard of comparison, and this I have endeavoured to do.

* This total is less than the total of the population by 4,509, as details of age for that number of persons were omitted in the census returns.

Sketch Map
of the
DOAB
Showing the situation
of the
MUNICIPAL TOWNS
and the rate of deaths from fever
(typhoid) per 1000 of population, for 1911

In regard to the population of England and Wales, the following results were recorded for the year 1871 :—

Age.	Population.	Deaths recorded.	Deaths to 1,000 living.	Remarks.
Under 1 year	686,372	125,868	183·3	The figures have been extracted from the last Census Report of England and Wales, and the Registrar-General's report for 1871, page 120.
From 1 to 15 years ...	7,54',807	113,015	14·9	
From 15 to 40 years ...	7,9 6,487	82,849	10·4	
Above 40 years ...	6,567,600	193,153	26·7	
Total ..	2°,712,266	514,879	22·6	

In this table the deaths entered as happening between the ages of 15-40, and above 40 years, are not correct, as it was found necessary to add one-half the total deaths happening between 35 and 45 years to the respective entries. But the error will not vitiate the resulting ratios to any serious extent.

By this standard of comparison it seems, that great as the infantile mortality in this province appears, it is not yet by any means fully recorded, and it is not improbable that many infants die whose deaths are not recorded. The exceedingly high ratio of deaths above 40 years is, I think, in accordance with expectation; for it is undoubtedly true that the value of life after 40 years of age is much less in India than in England.

The sex of those who died.

21. In 1875 the deaths of 373,582 males and 297,909 females were registered, being an excess of males over females of 75,673. An excess of male deaths was recorded at all ages, as the following table shows :—

Period of life.	Deaths registered in 1875.		
	Male.	Female.	Excess male.
Infants	81,068	68,512	12,556
Boys and girls	85,008	64,940	20,068
Adults	87,847	70,311	17,536
Old people	119,659	94,146	25,513
Total	373,582	297,909	75,673

22. In the year 1874 the excess of male over female deaths registered was 70,281. The excess in 1875, as shown above, was somewhat greater. Indeed in every year this preponderance of male deaths appears, although the existing male population so greatly exceeds the female. This result may not be due to careless registration of the sex of those who were reported to have died, for the preponderance of living males, notwithstanding this constantly repeated record of excessive deaths of that sex, may be due to a great preponderance of male births.

23. The birth registration in municipalities, partially effected as it is, continues to favour this opinion. During 1875 of 71,597 births registered, 39,188 were births of male children, and 32,409 births of female children, which provides an excess of male births over female of 94·6 per 1,000 of all births. In other words, more than 109 boys were born to 100 girls. The population of the municipalities is about one-fourteenth of the total population of the province; and, if the same ratio of predominance of male over female births exists throughout the province, about 98,000 more male than female children are born annually.

Registration in the Municipalities.

24. The results of birth and death registration, during 1875, in the 81 municipal towns, will be found in statement X. of the appendix.

The population of these towns is 2,236,844 ; a total of 71,597 births and 71,830 deaths was registered, or rather more deaths than births, which is not likely to be true in fact. Although from excessive mortality in some of the towns, it may be true that for the year in question the death-rate approached to the birth-rate.

For the year 1875, in regard to neglect of registration as witnessed to by the resulting figures, I have to call attention only to the city of Allahabad. The ratios for that city are 11·54 births and 13·96 deaths to 1,000 of the population ; a result absolutely absurd. The persistent neglect of birth and death registration in this city makes it necessary to omit the figures referring to it in the monthly published statements, as they serve only to corrupt the total results. Omitting the figures relating to Allahabad from the annual statement No. X. in the appendix, the ratios are 33·43 births to 33·35 deaths.

25. In Bánda, Cawnpore, Shámli, and Dehra the figures for 1875 witness to a neglect of birth registration. For Bánda the ratios are 20·01 births to 25·26 deaths per 1,000 of population; for Cawnpore 20·96 births to 30·39 deaths; for Shámli 24·62 births to 36·35 deaths; for Dehra 17·34 births to 32·55 deaths. I do not think in any of these towns disease prevailed to such an extent as to make the death ratio preponderate over the birth ratio, and therefore I cannot account for the result, except upon the supposition that the registration of births was neglected.

The average ratios for England and Wales are 34·20 births to 22·40 deaths. And judged by this scale, the birth registration appears to have been well effected. It is in the undue severity of the death ratio that the great difference lies, as I have before said. I think, in greatest measure, this results from an undue prevalence of fatal disease in many of the towns of the Doab.

Registration in Cantonments.

26. Mortuary registration in the 21 Cantonments of the province has a little improved during the year 1875. The results will be found in statement XI. of the appendix. The resulting ratio of deaths to population is 21·74 per 1,000. In 1874 it was 18·25. But even with this proof of more careful registration, the resulting ratio only just passes that provided by the very incorrect registration in the rural circles, which was 21·07. This unsatisfactory result is due entirely to neglect of registration in the Dehra Dún cantonment, with a ratio of 2·65 ; Ránikhet, 6·33 ; Moradabad, 10·5; and Jhánsi, 7·4. Such ratios of mortality in any given numerous population are absolutely absurd. The four cantonments mentioned have a collective population of 12,337, amongst whom 83 deaths were recorded. The resulting ratio is 6·72 per 1,000 of population; which, if true of all years, would provide for these people an expectation of 148 years of life.

27. I think it is only necessary that such absurd results should be brought to the notice of the Cantonment Officers concerned, to produce the necessary remedy. For none of the population live so well controlled, or obedient to command, as those of the cantonments, and principally I think it is necessary that deaths amongst officers' servants should be registered.

Omitting from the general statement the figures referring to these four cantonments, the resulting totals provide a ratio of 23·32 deaths per 1,000 of population—a fairly satisfactory result.

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28. During the year 1875 the district monthly mortuary statements have been received in this Office with a fair amount of punctuality, but yet, in some districts, a greater attention to this important point is necessary. And the following statement may serve to show where this attention is required.

Rule XI., of the code of Rules for mortuary registration, published by Government, and printed at page 3 of my report for 1870, orders that the district statement shall be forwarded to my office during the first week of the month succeeding to that to which it refers. A strict observance of this rule would provide for the receipt at my office in Allahabad of all the statements by the 10th of the month, and would allow of the submission to Government of the provincial statement by the 15th, as ordered in Rule XIII. It seems fair to ask why, if this rule can be observed in Kumaun, on the northern confines of the province, it cannot be generally observed?

Statement of date of receipt at Allahabad of the monthly mortuary statements during 1875.

District.	Average date for the 12 months.	District.	Average date for the 12 months.
Fatehpur	7th	Etáwah	14th
Bijnor	8th	Azamgarh	14th
Meerut	8th	Lalitpur	14th
Kumaun	10th	Gházipur	15th
Moradabad	10th	Tarái	16th
Cawnpore	11th	Muttra	16th
Muzafarnagar	12th	Mirzapur	16th
Mainpuri	12th	Jhánsi	16th
Basti	12th	Allahabad	17th
Sháhjahánpur	13th	Bareilly	19th
Jaunpur	13th	Budaun	19th
Hamírpur	13th	Farukhabad	19th
Jalaun	13th	Agra	19th
Garhwál	14th	Aligarh	20th
Dehra Dún	14th	Gorakhpur	20th
Saháranpur	14th	Benares	20th
Bulandshahr	14th	Bánda	27th
Etah	14th		

CHAPTER II.

HISTORY OF MORTALITY AND CHIEF DISEASES.

TABLE I.

29. Table of mortality for the 11 years, 1865 to 1875 :—

Year.	Population.	Deaths.			Deaths in 1,000 living.	Expectation of life in years.
		Male.	Female.	Total.		
1865	29,405,322	335,359	239,774	575,133	19·5	51
1866		193,144	136,932	330,076	11·2	89
1867		212,461	155,449	367,910	12·5	80
1868	29,588,653	186,312	133,574	319,886	10·8	92
1869		303,921	225,832	529,753	17·9	56
1870		...	...	480,378	16·2	63
1871		332,357	256,293	578,650	19·5	51
1872	30,884,022	393,664	309,684	703,348	22·7	44
1873	30,769,056	394,376	310,548	704,924	22·9	43
1874		371,270	300,989	672,259	21·8	46
1875		373,582	297,909	671,491	21·8	45

The table shows that mortuary registration was effected, in 1875, with exactly the same amount of success as in 1874, and still the resulting ratio of mortality is seen to be considerably less than knowledge of the facts of mortality as regards European countries would lead us to expect. A registration, which results in providing an expectation of life in India of 45 years, cannot but be unsatisfactory, when registration in European countries provides an expectation there of 35 years.

In many districts the registration has been well effected, and again I have to report that the failure seen in the results for the whole province during 1875 was due to neglect of registration in few districts, but especially in the districts of Basti and Allahabad, with their combined large population of 2,867,239, and the absurd ratio of 15·08 per 1,000 of population for the year.

30. The relative mortality for the three seasons in the past five years appears in the following table :—

TABLE II.

Year.	Season.				Proportion of 1,000.		
	Cold.	Hot.	Rains.				
	January, February, November, December.	*March, April, May, June.*	*July, August, September, October.*				
	Total deaths.	Total deaths.	Total deaths.	Cold season.	Hot season.	Rains.
1871 ...	195,208	164,751	215,691	342	285	373
1872 ...	210,284	205,107	287,907	299	292	409
1873 ...	204,237	231,997	268,690	290	329	381
1874 ...	206,022	207,519	258,718	306	309	385
1875 ...	201,785	203,293	266,413	300	303	397

The figures show the usual excess of mortality in the rainy season, due to deaths from fever, which preponderate in all years during that time.

TABLE III.

31. *Deaths from the three principal zymotic causes, according to season:—*

Season.	Fever.					Cholera.					Small-pox.				
	1871.	1872.	1873.	1874.	1875.	1871.	1873.	1873.	1874.	1875.	1871.	1872.	1873.	1874.	1875.
Cold ..	168,340	168,357	152,657	154,260	152,902	596	1,526	676	860	1,452	3,521	4,0'0	11,995	13,967	4,590
Hot ..	101,198	118,725	125,670	107,366	122,061	1,833	30,937	6,124	505	18,160	26,850	18,673	65,887	66,879	15,845
Rains ..	162,293	203,354	180,025	187,962	171,523	1,044	18, 02	8,468	4,971	21,494	8,078	7,350	19,211	12,501	5,394
Total ..	421,831	490,436	458,352	449,589	456,485	3,473	50,565	15,268	6,396	41,106	38,449	30,073	97,093	93,247	25,819

The table shows that FEVER disease was rather more fatal in 1875 than in 1874, and especially in the hot season.

That CHOLERA disease, prevailing in the hot season continued its prevalence through the rains, which is in accordance with the rule.

That SMALL-POX was much less prevalent than in any of the past five years, but that such prevalence as obtained occurred in the hot season, in accordance with the rule.

FEVER IN 1875.

32. During 1875 the usual great mortality from fever was recorded. Of the total ratio of mortality for that year, namely 21·82 per 1,000 living, 14·83 was recorded as due to FEVER. This is somewhat in excess of the ratio of 1874, which was 14·61: without doubt many deaths from forms of disease accompanied with feverishness are included amongst the deaths from fever, yet there can be no doubt that the great cause of deaths in this province is fever, and principally fever of a malarious type. In 1875 the ratio of deaths from this cause varied in the different districts (see Form VIII. in the appendix) from 8·92 in Garhwál to 27·9 in Tarái.

33. The districts of greatest mortality from this cause in 1875 appear in the following table:—

TABLE IV.

Number.	District.	*Ratio per* 1,000 *living of deaths from Fever.*		
		1873.	1874.	1845.
1	Tarái	25·26	24 36	27·99
2	Bulandshahr	20·40	32·40	24 00
3	Muzaffarnagar	17·29	18·77	21·04
4	Meerut	20·46	22·69	21·01
5	Mainpuri	15·55	18 57	19·72
6	Etah	14·59	18·06	19·06
7	Etáwah	14·89	18·97	18·05
8	Cawnpore	17·23	17·44	17·88
9	Agra	12·96	13·96	16 92
10	Aligarh...	13·10	15·74	16·39

With one exception, Tarái, the districts in the table are districts of the northern and central Doab. Tarái stands at the head of the list, as it has done in all previous years, excepting 1874, when a very great mortality from fever placed Bulandshahr at the head of the list.

34. Tarái consists of the country immediately bordering the Himalayas, a moist country of excessive vegetation, and it would be right to expect excessive fever mortality there. Moreover the inhabitants are in large proportion immigrants from more

densely-peopled parts of the country, and a considerable surface of the district is uncultivated land, thick set with forest and jungle. But nothing of this description will apply to the land of the Doab, which, as eastern countries go, is a beautiful region of soft dry land, drained on either hand by wide rivers of sweetest water. Its surface, carefully cultivated in almost all the breadth, its people the descendants of long settled families. That fever disease should prevail there, in any measure approaching its prevalence in the Tarái, must be due to some unusual cause. I think that cause is the increased moisture brought into the land in recent years, and by hindrance to the outflow of rainfall. The only other cause that merits consideration is a fever epidemic influence of unusual severity, believed in some quarters to be affecting the people of the Doab at this period of its history, and passing slowly from west to east. I have always doubted the existence of this cause, and I doubt it still. In my opinion the fever which causes the deaths in excess of expectation in the Doab, is the malarial fever which has prevailed amongst the inhabitants for many generations, but now prevails with increased fatality, because of the changed condition of the country and climate in many parts.

35. It is true that the figures of the mortuary records, fairly trustworthy in a matter affecting so wide a stretch of country, show that during the past few years the ratio of mortality from this cause, at first greatest in the western Doab districts, Saháranpur, and Muzaffarnagar, has become gradually greatest in the central Doab districts; but the position again assumed by Muzaffarnagar in the table for the year 1875 shows that the cause has by no means passed away from that district. Certainly it might be expected that as the increase of moisture has been longest established in the western districts, its people would become soonest acclimatized to the new conditions, and so the stress of mortality might fall at present on the people of the central districts until they become in some measure acclimatized. If there is any truth in this opinion, it would be right to expect an increased ratio of mortality from fever in the eastern Doab districts of Cawnpore and Fatehpur soon after their climate has been changed by an increase of moisture.

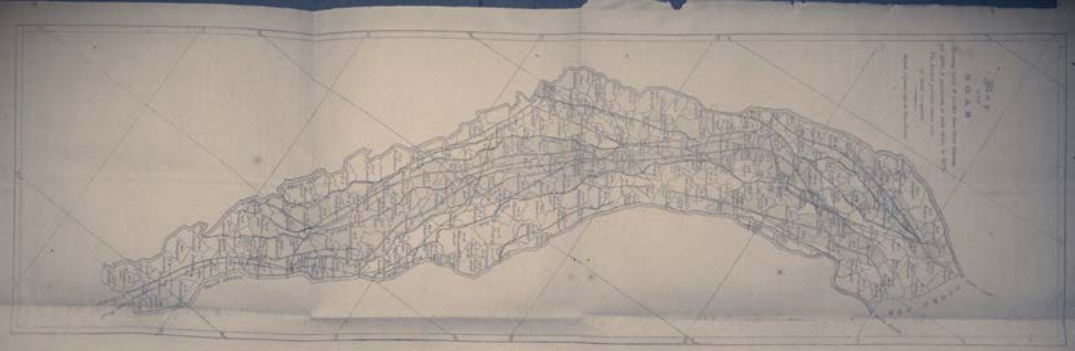
36. If my opinion of the cause of this increased mortality is correct, then the only hopeful remedy is the improvement of the natural drainage lines of the country. This has been done, with, I think, a great amount of success in the upper Doab, and will in time, I have no doubt, be thoroughtly effected in the central and lower Doab. With clear running streams always passing in the various small rivers for discharge to the Ganges or Jumna, the increase of moisture in many localities, hurtful both to the fertility of the soil and the health of the residents, is likely to be effectually removed. I know the officers of the Irrigation Department are anxious to effect this necessary change, and I believe, in the face of many difficulties, a thoroughly satisfactory result will be achieved.

CHOLERA.

TABLE V.

Annual mortality from Cholera in the North-Western Provinces for the eleven years, 1865 *to* 1875.

Population.	Year.	Deaths from cholera registered.	Ratio to 1,000 of population.
29,405,322	1865	76,322	2·53
,,	1866	8,175	0·27
,,	1867	57,837	1·95
29,588,655	1868	20,680	0·61
,,	1869	90,770	3·06
,,	1870	13,123	0·44
,,	1871	3,473	0 11
30,584,022	1872	50,565	1·64
30,769,056	1873	15,268	0 49
,,	1874	6,396	0·20
,,	1875	41,106	1·33



37. During 1875 cholera disease prevailed in all parts of the province, excepting Jhánsi and Lalitpur in the south and Kumaun in the north. During the months of January and February a few sporadic cases occurred in all parts of the province, in March the disease commenced to be epidemic in the eastern districts—Basti, Benares, Mirzapur, Jaunpur, and Allahabad. In April the disease had become epidemic in all the eastern districts. In May the epimedic influence had extended to nearly all the central and western districts. During June, July, and August, this extended prevalence continued, the mortality nowhere very severe. In September and October the prevalence declined in the eastern, while it increased in the western districts. In November the disease prevailed to any extent only in Rohilkhand, and in December only in Basti.

38. Compared with the results for the past ten years, the epidemic of 1875 is seen to be less severe in regard to the deaths which it caused than the epidemics of 1865, 1867, 1869, and 1872. But it was more equally diffused than perhaps any epidemic of which we have figures for comparison, and it was peculiar in regard to its influencing the people of Garhwál, who have been subject to this disease only once before in the course of ten years. Table VI. shows these facts well, and also points to an extraordinary freedom from this disease enjoyed by the people of Jhánsi and Lalitpur.

TABLE VI.*

Registered mortality from Cholera in all Districts, North-Western Provinces, for the years 1865 *to* 1875.

No.	Districts.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
1	Kumaun ...	...	...	15	...	1	...	...	...	21	...	...
2	Garhwál ...	...	...	4	...	...	...	...	...	...	...	6
3	Tarái ...	...	...	6	...	...	...	...	4	5	...	...
4	Bijnor ...	1	1	8	...	1	...	1	2	1	1	4
5	Moradabad ...	10	3	43	1	2	2	2	11	7	1	8
6	Bareilly ...	49	4	78	5	9	2	1	15	1	1	7
7	Sháhjahánpur ...	31	1	78	...	3	...	1	44	1	...	11
8	Budaun ...	6	1	8	1	11	1	1	9	5	...	17
9	Dehra Dún ...	...	...	9	...	...	...	...	3	...	...	4
10	Saháranpur ...	3	1	9	1	2	1	2	14	...	...	5
11	Muzaffarnagar ...	1	2	21	2	2	2	1	...	...	...	6
12	Meerut ...	9	7	41	3	6	1	1	5	1	...	16
13	Bulandshahr ...	2	1	7	1	2	1	...	4	...	...	24
14	Aligarh ...	2	1	11	1	4	1	1	8	4	1	24
15	Etah ...	2	1	12	1	2	1	...	3	2	...	19
16	Muttra ...	1	1	8	1	11	1	...	4	3	...	7
17	Farukhabad ...	18	2	6	1	3	...	...	25	1	1	23
18	Mainpuri ...	6	1	7	1	3	...	...	4	5	...	18
19	Agra ...	3	1	15	1	20	1	1	5	4	1	9
20	Etáwah ...	35	1	1	...	4	...	...	15	...	...	8
21	Cawnpore ...	16	2	18	1	28	...	2	16	1	...	19
22	Fatehpur ...	29	2	7	1	10	...	...	5	7	...	4
23	Jaunpur ...	14	3	2	9	29	7	4	83	6	...	14
24	Hamírpur ...	88	...	2	...	21	...	...	1	1	...	12
25	Bánda ...	27	1	25	...	14	1	...	2	8	...	12
26	Allahabad ...	42	3	5	6	29	2	2	36	2	...	14
27	Gorakhpur ...	57	3	50	40	86	27	1	30	4	40	27
28	Basti ...	13	1	51	5	43	50	...	95	1	10	40
29	Azamgarh ...	24	3	9	14	88	13	2	26	10	4	15
30	Gházipur ...	15	11	13	33	108	4	3	6	13	1	8
31	Benares ...	16	15	6	12	35	4	7	14	17	3	11
32	Mirzapur ...	23	7	4	21	48	9	1	16	13	1	22
33	Jalaun ...	102	1	...	...	26	...	...	1	...	...	5
34	Jhánsi ...	99	...	...	...	18	...	...	...	...	...	...
35	Lalitpur ...	7	...	...	...	27	...	...	...	...	...	...
	Total mortality in hundreds ...	763	81	578	163	695	23	34	505	152	64	411

* In this table the entries of deaths stand for hundreds, thus 15 stands for 1,500.

39. But although it may be rightly said that the disease was widely diffused, yet by carefully tracing the areas of prevalence on the map of mortuary circles, it appears the disease was by no means equally prevalent in all parts of the province; on the contrary, well marked areas of preference may be noticed :—

These areas may be divided as follows in order from east to west :—

1. A wide spread area, extending over 13 mortuary circles in Basti ; period of greatest prevalance—April, May, and June.
2. A wide spread area extending over eight circles in the north of Gorakhpur ; period—April, May, and June.
3. A detached area of two circles in the south of Gorakhpur; period April, May, June.
4. Scattered areas in the Azamgarh, Jaunpur, Benares, and Gházipur country, affecting 17 circles in all ; period—April, May, and June.
5. A very wide spread area, extending over 14 large circles in the Mirzapur country south of the Ganges ; period—March, April, May, and June.
6. A wide spread area, extending over 20 circles in the Bánda and Hamírpur country south of the Jumna ; period—May, and June.
7. A small area of four circles in the south part of Jalaun ; period—September and October.
8. A wide spread area in the Mainpuri, Etah, and Etáwah country of the central Doab, extending over 19 circles ; period—June to October,
9. A continuation of the last, extending into 19 circles of the Budaun country of Rohilkhand ; period—September, October and November.
10. Scattered areas in Aligarh, affecting eight circles ; period—June, July, and August.
11. A narrow area of 13 circles spanning the Doab in Bulandshahr and Meerut, extending over 13 circles ; period—August and September.
12. One small area of two circles in Muzaffarnagar ; period—August and September.
13. An area of four circles in Dehra and Mussoorie ; period—May and June.
14. An area of five circles in Garhwál ; period—June, July, and August.

Adding eight detached circles in which the disease prevailed, namely, five in Cawnpore, two in Muttra, and one in Moradabad, the total of rural circles of preference is 156, the total rural circles of the province being 813.

39. From the 14 areas described it is possible to select from each, the circle or circles in which excessive mortality from this cause occurred, with the following result :—

Rural circles of excessive mortality.	*Area of prevalence.*	*Ratio of deaths from cholera per 1,000 of population.*
Basti,	Amora,	6·3
	Basti,	5·9
	Rudholi,	5·4
Gorakhpur,	Máharájganj,	6·3
Jaunpur,	Bhumeon,	8·2
Mirzapur,	Mariáhu,	6·8
	Gharwál,	6·2
	Sháhganj,	8·2
	Punúganj,	6·2
	Chopun,	6·7
	Kheirwa,	6·9
	Robertsganj,	5·4
Hamírpur and Bánda,	Khanán,	6·2
	Muttaund,	6·3
	Sussolar,	11·5
	Murwál,	4·1

Map
OF THE
MORTUARY CIRCLES
of the
N. W. P.
Showing Cholera prevalence in 187
Figures show ratio of deaths from Cholera per 1000 of population in each circle
Months — The months of prevalence in each circle
Shaded portions show areas of excessive prevalence

Rural circles of excessive mortality.	*Area of prevalence.*	*Ratio of deaths from cholera per 1,000 of population.*
Central Doab, ...	Karhál, ...	5·3
	Kámpil, ...	7·1
	Kaimganj, ...	8·3
Rohilkhand, ...	Kallán, ...	10·6
Bulandshahr and Meerut, ...	Pilkhúwa, ...	12·2
	Jarcha, ...	11·8
Dehra, ...	Mussooree, ...	7 8
Garhwál, ...	Srinagar, ...	16·0

It is in the 24 circles of the above list that excessive mortality from cholera occurred during 1875.

41. To illustrate this subject the map of mortuary circles, showing the localities of cholera prevalence, has been prepared. It may be studied with advantage in regard to more than one point of interest. For example, it shows that geographical position does not apparently influence cholera prevalence, for the disease is seen to have prevailed in the eastern circle of Padraunan in Gorakhpur and the western circle of Dehra in the same months—May and June—the countries concerned being parted by six degrees of longitude; and the same fact is apparent in regard to the northern circle of Srinagar in Garhwál and the southern circle of Panwári in Hamírpur, parted by five degrees of latitude. In both places the disease prevailed in July and August.

And it may be seen that although the diseased action was wide spread in patches over the face of the country, its stress fell on few circles in every area of prevalence.

42. The map does not show—because it is impossible with the means at my command—the centres of population principally affected in each of these circles of preference, but I think it is true that only a limited number of villages, and often only contiguous villages in the circle, were affected. The following illustrations may be cited in proof of this :—

In Amora circle of Basti the locality of prevalence was a cluster of about 60 villages in its south-eastern quarter. In Pilkhuwa circle of Meerut the deaths from this cause occurred principally in ten villages, the land of seven being contiguous—and quite one-fourth of all the deaths reported occurred in one village.

43. The returns received from the Bánda district were very carefully prepared, and by their help I have been able to determine on the district map, with a near approach to accuracy, the position of nearly all the centres of population affected.

The result is that of a total of 1,231 centres of population contained in the district, cholera disease prevailed in two hundred and twenty. Of these 220 villages, in only 26 were more than 10 deaths recorded. These places of excessive prevalence are situated principally in two groups—one in the centre, the other in the eastern portion of the district. Indeed the total prevalence may be divided into three portions—one of eight centres of population in the Karwi or west part of the district, one of 97 centres in the midst of the district, and one of 115 centres in the eastern part of the district.

In all these portions the disease may be seen in many instances to have affected villages with contiguous lands; so often is this the case, that I think it may be accepted as a rule. Deaths in isolated villages occur here and there, but the course of the prevalence may be traced on the map from village to village almost without a break over wide surfaces of the district. In tracing this prevalence, it is seen, too, that centres of population situated on or near to the lines of traffic are very often affected.

This is especially noticeable in the neighbourhood of Bánda city, where the first death from cholera was reported on the 25th April. Of nine roadways passing from that city, the disease appeared on subsequent dates in May and June in centres of population situated on seven of the nine.

44. In regard to date of first death reported, the figures, as entered on the map show that the disease commenced at Karwi on the 10th April, to the east of the district, at Oran on the 22nd April in the centre of the district, and at Bánda on the 25th April, in the west of the district. And from these three places the disease appears to have radiated to form the three separate portions of prevalence before described. The figures do not show that the disease passed from village to village in orderly succession of dates ; indeed nothing could be more irregular than the dates of first outbreak, villages far from the centre of first attack having been affected before villages quite near in many instances and in all directions. And it seems quite impossible to reconcile this fact with any idea of atmospheric influence as a cause of cholera. Rather it seems to lead to the belief that the spread of the disease must be governed by the chance movements of mankind, or the appearance of the disease in any centre of population must be due to local conditions occurring at different times in places quite near together.

45. I think it is likely both these views may be correct. The outbreak of the disease may be due to the introduction of a diseased person into a favourable locality. With reference to this important question some light is thrown on the subject by facts recorded at Mussooree during the year 1875. Cholera disease prevailed in the Rájpur and Dehra mortuary circles from the 24th April until the 27th of May. Between the 1st and 23rd of May 42 cases of cholera, of which 27 ended fatally, were recorded at Mussooree, and with one or two exceptions all the 42 persons had been either at Rájpur or Dehra within 40 hours of the time attack occurred at Mussooree. Thus the disease, in very virulent form, was introduced into Mussooree, but the local conditions were unfavourable ; the disease did not prevail amongst the permanent residents.

46. With reference to this subject I think a very great amount of useful and important information might be obtained by the preparation of correct maps of the circles of excessive prevalence in any year ; the lands of affected villages being coloured, and the date of first attack entered therein. I have reason to think that delineated in this way certain laws of prevalence might be educed, which never can be arrived at by the consideration of lists of village names.

47. To effect this satisfactorily it would be necessary to attach to my office a fairly competent mappist for three months in every year. If this help could be provided, it might also be possible to provide a record of local prevalence of small-pox in every year, and I think a map of that character would be very acceptable to the officers of the Vaccination Department :—

TABLE VIII.

48. *Monthly deaths registered from Cholera in* 1875.

Number.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total
1	Kumaun ...	...	...	1	...	4	...	...	...	1	6	...	...	12
2	Garhwál ...	...	...	...	3	6	103	361	92	18	...	...	4	587
3	Tarái ...	...	...	...	...	...	...	...	8	8	15	...	...	31
4	Bijnor ...	1	2	4	11	12	2	9	3	77	192	65	8	406
5	Moradabad ...	2	4	3	5	5	6	6	173	445	123	21	1	794
6	Bareilly ...	...	...	...	5	3	6	3	13	411	241	44	4	730
7	Sháhjahánpur ...	...	...	...	6	23	2	19	17	127	596	246	27	1,063
8	Budaun ...	...	2	2	8	4	11	67	76	503	808	210	43	1,741
9	Dehra Dún ...	...	...	...	...	298	67	3	...	...	...	...	...	368
10	Saháranpur ...	1	...	2	3	21	54	35	129	212	46	...	1	504
11	Muzffaarnagar ...	...	...	...	1	9	4	26	186	304	81	..	...	561
12	Meerut ...	1	...	...	...	...	12	141	443	949	20	7	1	1,574
13	Bulandshahr ...	2	1	...	7	15	30	66	891	1,283	83	3	...	2,381
14	Aligarh ...	...	1	1	8	33	216	457	1,037	570	41	6	2	2372
15	Etah ...	1	...	1	2	53	170	354	410	624	212	30	4	1,861
16	Muttra ...	2	2	3	9	80	183	158	93	139	14	43	7	733

Number.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
17	Farukhabad ...	6	5	10	15	167	278	343	340	666	470	22	1	2,323
18	Mainpuri ...	...	...	...	1	30	427	619	229	395	68	2	...	1,771
19	Agra ...	1	...	11	16	4	76	44	230	437	46	3	1	869
20	Etáwah ...	...	...	1	14	4	122	175	158	312	34	...	...	820
21	Cawnpore ...	5	3	10	175	191	209	179	141	137	103	8	...	1,161
22	Fatehpur ...	...	1	4	44	163	94	13	46	33	8	...	...	406
23	Jaunpur ...	...	40	277	704	115	56	52	96	70	30	1	...	1,441
24	Hamírpur ...	...	1	...	11	232	549	131	59	127	73	...	...	1,183
25	Bánda ...	...	3	...	122	495	500	45	1	...	...	...	...	1,166
26	Allahabad ...	2	59	151	408	414	298	25	13	9	3	1	...	1,383
27	Gorakhpur ...	...	...	37	653	729	657	313	151	102	21	1	18	2,662
28	Basti ...	...	...	274	1,824	990	425	136	15	6	4	86	274	4,028
29	Azamgarh ...	...	11	33	607	319	248	135	137	50	27	10	...	1,647
30	Gházipur ...	...	...	...	126	158	154	85	67	58	13	14	...	675
31	Benares ...	10	17	122	607	151	55	24	49	18	29	9	3	1,094
32	Mirzapur ...	1	8	145	656	808	361	175	70	10	7	8	3	2,247
33	Jalaun ...	...	...	...	...	4	45	60	43	312	35	...	...	499
34	Jhánsi ...	...	...	...	...	...	...	1	...	2	8	...	...	11
35	Lalitpur ...	...	...	...	...	...	...	1	1	...	...	...	...	2
	Total ...	35	160	1,099	6,031	5,610	5,420	4,255	5,417	8,415	3,407	855	402	41,106

This statement of deaths recorded from cholera in each month shows as usual, that the disease which may prevail during the hot season months in the eastern districts, does not assume an epidemic form in the western and upper districts until after the establishment of the rains.

SMALL POX.

49. Registered mortality from small-pox in all districts for the ten years 1865 to 1875 :—

TABLE IX.*

No.	Districts.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
1	Kumaun ...	...	...	...	...	...	1	...	...	1	...	...
2	Garhwál ...	...	...	...	...	...	...	...	1	...	...	...
3	Tarái ...	...	2	3	...	...	...	2	...	1	2	1
4	Bijnor ...	1	39	45	2	...	5	69	38	15	20	20
5	Moradabad ...	10	40	60	8	7	25	50	13	35	33	16
6	Bareilly ...	52	127	48	13	6	19	43	29	77	18	9
7	Sháhjahánpur ...	86	113	11	2	67	20	35	31	52	26	8
8	Budaun ...	28	20	34	4	5	7	12	13	58	15	4
9	Dehra Dún ...	...	...	1	...	...	...	...	1	...	...	...
10	Saháranpur ...	24	103	11	39	11	20	44	53	38	18	28
11	Muzaffarnagar ...	...	67	10	23	11	30	43	11	31	9	17
12	Meerut ...	72	37	9	9	50	22	13	8	25	10	3
13	Bulandshahr ...	57	199	24	18	63	16	4	10	70	11	7
14	Aligarh ...	79	10	4	19	64	5	7	6	47	13	11
15	Etah ...	52	1	5	11	35	1	3	3	50	13	4
16	Muttra ...	100	1	1	10	60	4	3	5	18	6	6
17	Farukhabad ...	67	4	4	7	39	...	3	1	15	33	3
18	Mainpuri ...	24	4	13	9	42	1	1	...	8	32	2
19	Agra ...	67	1	5	10	78	2	3	4	32	13	9
20	Etáwah ...	13	1	2	2	36	2	2	1	5	48	2
21	Cawnpore ...	75	3	13	4	63	3	12	2	55	74	9
22	Fatehpur ...	18	4	7	5	61	...	1	2	5	31	4
23	Jaunpur ...	8	5	13	14	18	5	1	2	10	33	9
24	Hamírpur ...	30	1	1	13	41	3	3	4	1	12	9
25	Bánda ...	25	4	8	12	70	1	2	3	3	28	22
26	Allahabad ...	6	6	7	8	14	3	2	3	18	66	4
27	Gorakhpur ...	7	11	25	3	4	2	2	11	149	138	6
28	Basti ...	27	11	17	12	4	5	8	33	89	21	4
29	Azamgarh ...	40	6	5	20	12	18	3	3	23	96	2
30	Gházipur ...	25	9	6	17	12	11	3	2	22	58	2
31	Benares ...	5	2	4	8	12	2	2	1	6	5	2
32	Mirzapur ...	23	6	3	8	23	3	3	4	9	23	6
33	Jalaun ...	2	1	...	2	15	1	1	...	1	14	2
34	Jhánsi ...	8	1	...	1	32	...	1	1	1	4	6
35	Lalitpur ...	9	5	2	1	10	...	...	3	...	4	34
	Total in Hundreds.	1,076	663	398	299	907	235	384	300	970	932	253

* In this table the entries of deaths stand for hundreds; thus, 15 stands for 1,500.

The above table shows that during 1875 small-pox prevailed to a serious extent only in Lalitpur and Bánda in the south of the province; and Bijnor, Moradabad, Saháranpur, and Muzaffarnagar, in the north.

50. Omitting Kumaun, Garhwál, and Dehra Dún, which are exempt from this disease, owing to the labours of the Vaccination Department, by which all the infant population of that large track of country is brought under the protecting influence of vaccination, it will be seen that the disease was present, in a fatal form, in some part of every other district of the province.

51. Tracing the prevalence on the circle map, which I cannot print for want of means, I find that the prevalence included all the circles of Lalitpur; in which district the mortality from this cause reached the very high ratio of 16·1 per 1,000 of population. This high general ratio was, however, far exceeded in mortuary circle Nathi Khera with a ratio of 28·9, in Bar circle 28·3, in Jhakaora 24·2, in Bansi 24·4, in Birdha 26·3.

52. When it is remembered that death from this disease affects almost entirely the section of the population below 12 years of age, which, for the province, is about one-third of the total population, and for any district may be assumed to be very near that ratio, then the great suffering and mortality which afflicted the young people of those circles from this cause will be better understood.

The population of the five circles mentioned was 63,039, and their population of children below 12 years of age about 21,000. The deaths from small-pox were 1,676 in these circles during 1875. The resulting ratio is 79·8 per 1,000 of children living; and I believe it is very near the truth to say that 80 in every thousand of the young people living in that especial part of the country died from small-pox during 1875.

The record of a fact like that should do something to point out the necessity of continued and increasing encouragement of the great work of vaccination, which has already done so much for the people of the Kumaun and Garhwál country.

53. This area of great prevalence, which I suppose represents only a portion of a more extended area, including a great part of the Bundelkhand, Independent States into which Lalitpur extends south as a narrow country, is continued with a record of lessened severity through Jhánsi, Hamírpur and Bánda up to the Jumna, and even beyond it into one circle of Fatehpur.

54. In all the eastern districts the prevalence was noticeable in only two detached circles in Gorakhpur in two contiguous circles of Azamgarh, in three contiguous circles of Benares, in three contiguous circles of Mirzapur, in one detached circle of Jaunpur, in five detached circles of Allahabad.

55. In the central districts one small area of 13 contiguous circles, lying in Fatehpur and Cawnpore, two detached circles in Etáwah, one circle in Etah.

56. In the north-west districts, an area of 20 contiguous circles, forming part of Agra, Muttra, and Aligarh, two contiguous circles in Bulandshahr, an area of six contiguous circles forming part of Bulandshahr and Meerut, an area of 10 contiguous circles in the extreme east of Sháhjahánpur bordering Oudh, and lastly a wide spread area of prevalence, including 62 contiguous circles, and covering all Muzaffarnagar, Saháranpur, Bijnor, and part of Moradabad and Tarái.

57. In no one of these last mentioned areas did the mortality from this cause approach, in any part, to the severity of the mortality in the Lalitpur circles mentioned above.

58. As stated, the widespread northern area includes part, namely two circles, of Tarái,—Jaspur and Káshipur. In Jaspur 35 deaths were recorded, in Káshipur 32, of which 27 were reported from Káshipur town. I give prominence to these figures as Tarái

participates with Garhwál, Kumaun, and Dehra Dún in the advantage of the general practice of vaccination. In 1874 in Káshipur 50 deaths were recorded from small-pox, and again in 1875 there is a record of several deaths from the same cause, and it seems likely that some children are not protected by vaccination in that circle, especially in Káshipur town.

Bowel Complaints.

59. During the year 1875 deaths from bowel complaints, principally I have no doubt dysentery and diarrhœa, were most numerous in the following districts. And the table shows that they are the districts of greatest mortality from this cause in all the past five years. In the remaining districts of the province the ratio of mortality from this cause ranged from 2·76 in Farukhabad to 0·24 in Jaunpur, during 1875 :—

TABLE X.

Districts of greatest mortality from bowel complaints during the past five years.

	Districts.	1871. Ratio of deaths per 1,000 living.	1872. Ratio of deaths per 1,000 living.	1873. Ratio of deaths per 1,000 living.	1874. Ratio of deaths per 1,000 living.	1875. Ratio of deaths per 1,000 living.	
1	Kumaun ...	3·39	4·91	5·05	3·46	4·76	1
2	Garhwál ...	8·84	8·31	7·11	6·53	7·65	2
3	Moradabad ...	3·39	5·40	4·74	3·92	4·40	3
4	Sháhjahanpur ...	3·99	6·85	4·74	3·71	3·79	4
5	Budaun ...	1·54	2·16	2·06	3·14	5·78	5
6	Dehra Dún ...	2·55	2·66	4·27	4·14	4·98	6
7	Saháranpur ...	2·75	2·91	2·41	3·38	4·64	7
8	Aligarh ...	2·26	2·92	3·87	3·03	4·85	8
9	Fatehpur ...	4·13	4·81	4·04	2·84	3·42	9
10	Hamírpur ...	6·10	7·19	6·71	4·35	4·83	10
11	Bánda ...	2·21	2·90	3·95	2·48	2·39	11
12	Lalitpur ...	2·43	4·49	4·76	4·22	5·42	12
13	Jalaun ...	2·83	1·00	1·86	3·08	4·23	13
14	Jhánsi ...	2·81	2·75	2·51	1·74	3·87	14
15	Bijnor ...	2·30	2·99	2·85	3·02	4·79	15
16	Muttra ...	1·95	1·69	2·96	2·70	4·28	16

The mortality from this cause appears to fall principally upon the people of Bundlekhand and the Himalayahs, and upon the people of certain districts of the Doab and Rohilkhand. It is noteworthy that the table does not contain the name of any eastern district, although dysentery might be expected to prevail more in the eastern than in the western districts.

Injuries and Accidents.

60. During the year 1875 the deaths recorded from this cause were, males 7,167, females 7,898, total 15,065. It may be noticed that under this head more female than male deaths are recorded, whereas under all other heads the contrary fact rules.

This peculiarity is due entirely to the record of deaths by suicide, and from snake-bite or attack of wild beasts. Under these two heads 3,466 female against 2,189 male deaths were registered, while under the heads wounds and accidents, 4,978 male against 4,432 female deaths were registered. This difference witnesses, I think, very favourably to the general correctness of the registration of sex at death. For there can be no doubt that suicide is a form of death which, in this country, more affects female than male life. And death by snake-bite or attack of wild beasts might be expected to show a like peculiarity; by snake-bite, because the women pass by far the greater portion of their lives within the houses and enclosures in the walls of which snakes principally harbour; by attack of wild beasts because of the weakness and timidity of women.

Death from wounds or violent accidents should more affect male life, because men mostly fight together with deadly weapons, and by their occupations are more exposed to violent accidents.

61. Deaths by *suicide* were most frequent in the following districts in 1875, and I have added the figures for the previous two years to the table, and so far as the table teaches, it appears that suicide is most prevalent in these districts in all years.

TABLE XI.

Districts of greatest mortality from Suicide.

Districts.	1873. Deaths from suicide.			1874. Deaths from suicide.			1875. Deaths from suicide.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Sháhjahánpur	38	103	141	25	121	146	37	118	155
Farukhabad	35	65	100	25	84	109	22	62	84
Azamgarh	14	80	94	20	65	85	8	68	76
Budaun	16	38	54	19	58	77	20	44	64
Jhánsi	22	50	72	17	51	68	20	60	80
Hamírpur	17	42	59	10	46	56	10	54	64
Bánda	20	41	61	13	37	50	17	42	59
Allahabad	22	38	60	19	40	59	24	35	59
Gházipur	24	47	71	8	56	64	7	52	59

In the remaining districts, the deaths from this cause during 1875, range between 59 in Gorakhpur and 1 in Dehra Dún.

62. Self poisoning by opium is, perhaps after drowning, the most frequently practised method of suicide in this province, and especially in the districts in which opium is grown and manufactured. This probably accounts in some considerable measure for the predominance of deaths by suicide in several of the districts of the table.

63. Deaths by *wounds* were most frequent during 1875 in the districts of the following table :—

TABLE XII.

Districts of greatest mortality from wounds.

District.	1873. Deaths registered from wounds.			1874. Deaths registered from wounds.			1875. Deaths registered from wounds.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Agra	68	30	98	95	42	137	73	52	125
Moradabad	39	25	64	52	43	95	44	41	85
Kumaun	69	50	119	33	24	57	32	28	60
Garhwál	37	30	67	30	35	65	34	20	54
Budaun	23	15	38	23	16	39	33	23	56
Mirzapur	45	21	66	30	29	59	21	13	34
Farukhabad	39	21	60	32	22	54	24	20	44

The figures for the two previous years show that they are probably the districts in which deaths from wounds are most numerous in all years.

Agra and Moradabad, countries where many Mahomedans reside, head the list, followed by Kumaun and Gurhwál, where the people are almost all Hindús. The favourite weapon of the Mahomedans is the sword, the national weapon of the Himalayan people the kukri. These facts may account for the preponderance of deaths from wounds in the districts mentioned.

64. Deaths from *snake-bite or attack of wild animals* were most frequent during 1875 in the following districts.

TABLE XIII.

Districts of greatest mortality from snake-bite and attacks of wild animals.

District.	1873.			1874.			1875.		
	Deaths registered from snake bite and attacks of wild animals.			*Deaths registered from snake-bite and attacks of wild animals.*			*Deaths registered from snake-bite and attacks of wild animals.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Gorakhpur ...	183	282	465	209	231	440	231	285	516
Bánda ...	167	223	390	164	243	407	115	214	329
Allahabad ...	109	154	263	120	177	297	74	114	188
Mirzapur ...	84	141	225	104	122	226	88	140	228
Budaun ...	91	134	225	77	107	184	72	115	187
Bareilly ...	121	154	275	88	105	193	91	132	223
Bijnor ...	67	105	172	66	81	147	64	102	166
Moradabad ...	91	112	203	54	86	140	83	90	173
Sháhjahánpur ...	74	125	199	68	75	143	68	82	150
Basti ...	62	64	126	78	80	158	120	143	263
Cawnpore ...	74	85	159	53	68	121	63	88	151

In the remaining districts, during 1875, the deaths from this cause ranged from 136 in Jaunpur to nine in Dehra Dún—and there appears to be little doubt that the deaths from snake-bite and attacks of wild animals are most frequent in all years in the districts of the table. It is impossible to say how many of the deaths resulted from snake-bite, and how many from attacks of wild beasts, as deaths from both causes are registered together. But it is likely that attacks of wild animals, especially of wolves, caused the greater number of deaths, as these animals are especially numerous in several of the districts in the table.

CHAPTER III.

OF THE METEOROLOGY OF THE YEAR AND THE GENERAL CONDITION OF THE PEOPLE.

65. The meteorological facts of the year 1875 appear in the following table No. I:—

TABLE I.

Mean Atmospheric Pressure &c., for Roorkee, Bareilly, Agra, Lucknow, and Benares.

Months.	Barometer (mean of 10 and 16 hours readings).		Thermometer.		Humidity (mean of 10 and 16 hours readings).		Wind.	Rain.				
	Mean for 1868-75.	Mean for 1875.	Mean temperature for 1868-75.	Mean for 1875.	Mean for 1868-75.	Mean for 1875.	Prevailing direction in 1875.	1871.	1872.	1873.	1874.	1875.
January, ...	29·490	29·438	59·2	58·3	54·2	47·9	W. and N. W.	1·19	2·10	·32	·25	·46
February, ...	29·424	29·444	65·7	63·7	48·1	49·8	Ditto.	·91	·74	·90	·79	1·86
March, ...	29·324	29·281	75·3	77·9	36·7	32·9	Ditto.	·11	·24	·31	·69	...
April, ...	29·207	29·131	86·1	87·9	27·9	27·1	W.	·59	·25	...	·03	·01
May, ...	29·097	29·111	9..7	89·5	33·9	37·0	E.	1·70	·79	·95	·13	·54
June, ...	28 973	28·939	91·7	92·4	49·6	49·4	W. and E.	10·05	4·57	·67	10·32	1·99
July, ...	28·983	28·962	89·5	86·2	73·0	71·5	Ditto.	16·97	12·98	16·55	12·69	16·05
August, ...	29·054	29·066	84·8	88·1	74·7	78·6	E. and S. E.	9·90	18·78	10·41	14·70	14·98
September, ...	29·149	29·145	83·5	82·9	72·4	75·9	E.	8·38	4·90	10·15	8·57	9·85
October, ...	29·315	29·323	77·9	76·3	50·1	53·6	W.	...	...	...	·86	·15
November, ...	29·470	29·473	68·5	68·2	44·8	47·3	Ditto.	...	...	·02	...	...
December, ...	29·515	29·514	61·1	61·9	51·9	57·3	Ditto.	1·40	·17	·09	·02	·15
							Total ...	51·20	39 82	40·37	49·05	46 04

The table shows the means of five stations in the plains, and fairly represents the principal meteorological conditions of the province for 1875, in comparison with the means for the eight years 1868-75.

66. In regard to temperature of the atmosphere the table shows that in January and February the temperature was below the general mean; in March, April, and June considerably above the general mean, although in May it was below it. For the remaining months the temperature was below the general mean.

From these facts it may be concluded that 1875 was a year of temperate cold season, of ardent hot season, the heat tempered by plentiful rain as the year progressed.

67. In regard to humidity of the atmosphere the table shows that during the hot season and rains the temperature is apparently governed by the moisture, being higher as the moisture is less, and *vice versâ*. Thus in March, April, and June the moisture was less, the temperature greater than the general mean. In May the moisture was greater, the temperature less, and the same rule holds good for the months of the rainy season, with the exception of July, when the moisture and temperature were both less than the general mean.

68. The prevailing winds were west and north-west for the first four months of the year, but east in May, which probably accounts for the excess of moisture. During the rainy season the prevailing winds were east and south-east. In the three last months of the year westerly winds again prevailed.

69. In regard to rainfall the table shows that a fair average of rain fell during the year in the districts of the plains, although, as in 1873, the fall in June was much less than the average. This was amply compensated for in July, August, and September, in which months a larger rainfall was recorded than in the same months of any of the past five years.

70. In table II. the distribution of this rainfall may be learnt, in as far as a table of 13 recording stations, situated in widely separated parts of the province can show it, and I have no doubt the figures of the table represent in some measure the amount of rainfall which fell in the different parts of the province to which each station belongs:—

TABLE II.

Distribution of rainfall in 1874 *and* 1875.

Number.	Station.	*Rainfall in inches.* January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total, 1874.	Total, 1875.	Number.
		1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.	1874.	1875.			
1	Chakráta, ...	...	0·68	1·69	6 37	3·29	0·44	0·46	0·44	1·55	3·83	14·24	11·92	23·71	14·93	17·08	27·88	7·54	10·63	...	1·02	...	...	...	0·32	70·78	78·46	1
2	Ránikhet, ...	1·67	0·21	2·37	4·82	3·56	...	0·05	0·20	0·56	3 79	11·61	5·31	17 00	21 03	18·58	7·78	5·82	10·07	...	0·32	...	...	...	...	61·17	53·58	2
3	Dehra, ...	1·47	0·62	3·77	6·11	3·50	...	...	0·01	0·58	4·59	18·79	10·40	34·63	22·96	25·80	23 06	7·85	12·89	...	1·20	...	...	...	0·05	96·39	81·89	3
4	Roorkee, ...	1·06	0·16	2·57	4·33	2·43	...	...	0 05	0·33	1·81	11·81	0·75	16·95	15·43	8·62	16 3 7	3·65	7·69	...	0·60	...	...	0·04	...	47·36	47·20	4
5	Meerut, ...	0·20	...	1·50	1·60	1·17	...	...	...	...	1·50	8·95	0·28	12·95	5·88	7·92	9·15	4·35	15 90	...	...	...	...	...	...	37·07	34·31	5
6	Bareilly, ...	0·05	0·35	0·80	2·35	0·65	...	...	...	0·30	0·23	7·65	2·50	14·20	28·53	10·10	16·93	21·75	6·53	...	0·02	...	...	...	0·07	55·50	57·51	6
7	Agra, ...	0·06	0·35	...	2·17	0·13	...	0·13	...	...	0·57	6·37	0·10	10·33	16·14	9 62	4·59	1·65	12·74	...	0·07	...	...	...	...	28·35	36·73	7
8	Lucknow, ...	0·07	0·10	0 29	0·37	0·10	...	...	...	...	...	12·19	0·74	12·88	8·30	17·68	19·71	7·44	14·03	0·37	...	...	...	...	0·20	51·03	43·45	8
9	Allahabad, ...	...	0·49	...	0·43	0·56	...	...	...	0·02	1·07	6·67	3·49	15 58	26·33	8·93	12·63	8·50	7·74	0·22	0·10	...	...	...	...	40·46	52·28	9
10	Gorakhpur, ...	...	0·30	1·00	0·20	0·10	...	...	...	0·30	1·70	11·60	7·90	23·20	8·20	11·60	16·40	9 00	3·30	3·30	...	...	...	...	0·10	60·10	38·10	10
11	Benares, ...	...	1·36	0·27	0·10	0·12	...	...	...	...	0·09	13 57	5·78	9·16	11·85	27·43	17·31	8·37	8·25	3·50	0·08	...	...	0·50	...	62·88	44·82	11
12	Jhánsi, ...	...	...	...	0·85	...	...	0·02	...	0·30	...	3·50	2·60	9 20	8·10	18·60	7·50	2·90	7·60	...	...	...	...	...	...	34·20	26 68	12
13	Ajmere, ...	0·05	0·10	0 30	2·84	0·20	...	...	...	0·66	1·53	4·59	0·98	5·47	8·00	5·20	4·19	* ...	17·80	0·50	...	...	...	...	0·53	18·83	36·37	13
	Totals, ...	4·63	4·72	14·81	32·54	15·91	0·44	0·67	0·70	4·35	20·71	143·94	52·76	222·10	195·73	200·97	183·50	96·91	135·17	7·89	3·41	...	...	0·54	1·67	...	...	
	Average, ...	0·33	0·36	1·06	2·50	1·14	0·03	0·05	0·05	0·31	1·59	10·28	4·06	15·86	15·06	14·36	14·12	6·92	10·40	0·56	0·26	...	...	0·04	0·13	51·09	48·56	

* No return.

From this table it may be noticed that the distribution was peculiar during 1875, principally in the more liberal supply which fell in the Agra and Ajmere country and the lessened supply which fell in the Gorakhpur and Benares country. During 1874 exactly the opposite of this was noticed. I may add that in 1873 the facts in regard to this matter were the same as those recorded above for 1875, and it seems not unlikely a law of distribution may exist providing in alternate years, a lessened supply in the eastern districts with a better supply in the west and south.

71. The results registered for Jhánsi would seem to throw doubt on the correctness of this supposition, but the scanty fall at Jhánsi was a local circumstance, witnessing to the impossibility of judging correctly concerning the rainfall of any country by observations recorded at places very far apart. For the registration effected at the tahsílis of that district provide the following results, Jhánsi 24·3 inches, Mote 33·4, Garotha 36·1, Ránipur Mau 54·0; average 37· inches :—

In five tahsílis of Jalaun the average was 34·8 inches.

In seven tahsílis of Bánda the average was 53·6 inches.

And there is no doubt that during 1875 the southern districts of this province enjoyed a plentiful supply of rain: a very welcome circumstance I have no doubt to the inhabitants, who are by comparison a poor struggling people; their poverty being due in great measure to a succession of years unfavourable to agricultural operations.

72. The only part of the province in which the rainfall was seriously deficient in 1875 is that part of the Aligarh district contained in three adjoining parganas—Aligarh 21·4, Khair 18·3, Iglas 18·0 inches; average 19·2 inches.

That is a very scanty rainfall, and not sufficient for successful cultivation. Fortunately Khair is in considerable part irrigated by the canal, but Aligarh and Iglas have not that advantage, I think.

73. *The general condition of the people during* 1875 may be judged of by reference to the following table :—

TABLE III.

Average price of common food articles during the past six years in June and December, when the crops of the year have been gathered.

Common food articles.	Average quantity in seers sold for one rupee throughout the province.											
	1870.		1871.		1872.		1873.		1874.		1875.	
	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.
Wheat, ...	16	20¾	26	2'¼	19¼	18	16¾	15½	17¾	19¼	29½	24½
Barley, ...	22	27	36	28	28½	24	22	19¾	22¾	25¾	31	32
Juar, ...	20¾	22½	26½	23¾	18¾	19¾	20½	21½	17¼	22¾	24	35¼
Arhar, ...	15½	16	25¾	20¾	16½	18½	17¾	15½	13¾	13¼	18½	20
Gram, ...	...	...	...	...	...	...	...	...	20½	24	27	29½

The figures of the table witness the fact that 1875 was a year of plenty, a year such as for cheapness of the necessaries of life the people have not experienced for now a long time back. The table was commenced in 1870; if it contained the quotations for 1868 and 1869, the comparative plenty of 1875 would be still more apparent. This plenty is due to the succession of good rainy seasons which have characterized the years from 1870 to 1875. If the year 1876 is blessed in the same way I think a hope may be entertained that at least barley, the staple food of the millions of poor, may be sold at the end of that year at a maund the rupee, as it used to be in the old times of which

I have often heard the people speak. Indeed, in December, 1875, more than one maund of barley could be purchased in Basti and Gorakhpur for a rupee. The comparative cheapness of arhar in 1875, after three years of high prices for that article, is very satisfactory. Its scarcity and consequent high price depends in great measure upon the quantity of the crop which is frost-bitten in any year. During the past cold season I know the crops of arhar were very little injured by frost, and I anticipate a further cheapening in 1876 of this important article of food, which to the poor amongst the Hindus takes the place of meat.

74. This general condition of plenty was not quite equally distributed over the province, although in every division there was a decided improvement over 1874, in respect to this matter.

The following table shows the comparative plenty in every district:—

TABLE IV.

Statement showing the price of grains in each district in the months of June and December, 1875.

No.	District.	June.								December.								Average of division.	June.		Dec.	
		Wheat.		Barley.		Gram.		Arhar.		Wheat.		Barley.		Gram.		Arhar.			s.	c.	s.	c.
		s.	c.	m.	s.	c.	s.	c.	s.	c.	m.	s.	c.	s.	c.	s.	c.					
																		Kumaun.				
1	Kumaun, ...	12	0	0	16	0	14	8	8	8	13	8	0	18	0	17	0	9	0	Wheat,	19	9	21	1
2	Garhwál, ...	23	0	0	25	0	10	0	7	0	22	0	0	22	0	10	0	6	4	Barley,	27	13	30	0
3	Tarái, ...	23	12	1	2	8	26	4	15	0	27	8	1	10	0	27	8	20	0	Gram,	16	15	18	3
																				Arhar,	10	3	11	12
																		Bareilly.				
4	Bijnor, ...	22	4	0	33	11	25	14	14	10	22	0	0	31	4	27	0	18	0	Wheat,	23	9	26	4
5	Moradabad, ...	21	14	0	35	0	28	2	14	14	23	12	0	35	10	32	8	18	8	Barley,	35	9	38	7
6	Bareilly, ...	22	13	0	35	0	30	0	20	0	25	0	0	35	0	35	0	20	0	Gram,	29	1	33	8
7	Sháhjahánpur, ...	26	8	1	0	0	30	4	18	0	33	0	1	11	8	37	0	22	0	Arhar,	17	5	19	8
8	Budaun, ...	24	4½	0	34	3	31	8½	19	3	27	9	0	39	0	36	0	19	1					
																		Meerut.				
9	Debra Dún, ...	21	0	0	33	0	23	8	13	8	21	0	0	35	0	26	0	14	0					
10	Saháranpur, ...	24	3	0	36	10	30	11	15	1	28	11	0	29	2	30	3	17	4	Wheat,	23	14	24	5
11	Muzaffarnaggar,	25	5	0	38	8	32	13	17	10	25	5	0	35	3	27	8	16	8	Barley,	34	4	32	6
12	Meerut, ...	23	15½	0	33	0	29	0	20	10½	23	6	0	30	14½	28	0½	19	8½	Gram,	29	5	29	2
13	Bulandshahr, ...	25	0	0	32	8	30	0	22	0	26	0	0	31	0	31	0	20	8	Arhar,	18	7	18	4
14	Aligarh, ...	24	0	0	31	0	30	0	22	0	26	8	0	33	0	32	0	22	0					
																		Agra.				
15	Etah, ...	23	8	0	31	4	27	0	22	0	27	0	0	35	0	29	8	23	0					
16	Muttra, ...	21	0	0	29	0	28	0	22	0	23	0	0	28	8	30	0	23	0	Wheat,	22	4	25	2
17	Farukhabad, ...	22	12	0	32	0	29	0	17	14	27	2	0	38	8	34	6	23	6	Barley,	29	8	33	9
18	Mainpuri, ...	24	0	0	31	0	28	0	25	0	27	0	0	35	0	29	8	25	0	Gram,	26	13	29	12
19	Agra, ...	20	4½	0	26	2	25	2	20	0	21	11	0	32	0	28	8	21	0	Arhar,	21	4	23	2
20	Etáwah, ...	22	0	0	26	8	24	0	20	8	25	0	0	32	0	26	8	23	8					
																		Allahabad.				
21	Cawnpore, ...	23	8	0	29	0	27	8	22	0	27	0	1	0	0	34	0	27	8					
22	Fatehpur, ...	22	0	0	25	12	27	8	21	12	27	8	0	36	0	36	0	24	0	Wheat,	22	3	25	1
23	Jaunpur, ...	26	13	0	33	3	36	0	24	0	26	13	0	37	6	33	12	22	9	Barley,	26	13	34	4
24	Hamírpur, ...	21	0	0	23	8	22	12	20	0	22	8	0	26	0	28	10	22	8	Gram,	27	13	32	4
25	Bánda, ...	20	0	0	21	8	25	0	18	8	24	8	0	31	0	31	0	21	0	Arhar,	21	9	23	3
26	Allahabad, ...	19	12		28	0	28	0	23	0	22	0	0	35	0	30	0	21	8					
																		Benares.				
27	Gorakhpur, ...	28	0	1	2	0	31	8	22	8	29	12	1	9	0	35	14	23	4					
28	Basti, ...	26	9	0	37	8	30	0	21	14	30	10	1	5	0	34	6	25	0	Wheat,	27	3	25	15
29	Azamgarh, ...	25	7	0	33	15	25	13	20	10	25	1	0	35	6	31	0	20	10	Barley,	33	7	37	12
30	Gházipur, ...	19	5	0	29	15	28	5	16	12	26	12	0	34	12	33	7½	21	14	Gram,	28	5	31	5
31	Benares, ...	21	8	0	29	6	26	4	16	12	23	10	0	30	8	25	4	17	13	Arhar,	19	12	21	7
32	Mirzapur, ...	20	0	0	28	0	28	0	20	0	21	0	0	32	0	28	0	20	0					
																		Jhánsi.				
33	Jalaun, ...	21	0	0	22	0	25	0	18	0	22	0	0	24	0	29	0	20	0	Wheat,	20	11	20	5
34	Jhánsi, ...	19	14	0	29	8	22	0	14	0	20	0	0	32	0	22	3	18	0	Barley,	26	13	28	11
35	Lalitpur, ...	21	2	0	29	0	25	8	10	0	19	0	0	30	0	24	4	14	0	Gram,	24	3	25	2
																				Arhar,	14	0	17	5

75. In 1874, as noticed in my report for that year, a certain scarcity prevailed in some districts of the Benares and Allahabad Divisons. This scarcity approached almost to famine in the early months of the year in Basti and Gorakhpur, the average price of wheat and barley then being 1 rupee for 13½ and 16¾ seers respectively in those districts. This threatening of famine passed away however, and during 1875 the average price of wheat in Basti was 28½ seers, barley 41½ seers, and in Gorakhpur wheat 28¾ seers, barley 40¼ seers for a rupee. At the same time also a serious scarcity prevailed in the Allahabad, Bánda, and Hamírpur Districts, where, at the beginning of 1874, wheat and barley sold for 15 and 17½ seers respectively. In 1875 the average rate in those districts was wheat 21 seers, barley 27½ seers, for a rupee. So that here too, though in less degree than in Basti and Gorakhpur, threatened famine has been succeeded by a condition of average plenty.

CHAPTER IV.

INSPECTIONS OF SANITARY COMMISSIONER.

76. During the year 1875, I have inspected the Municipal towns of the Bijnor, Moradabad, Budaun, Bareilly and Sháhjahánpur districts, forming the Rohilkhand Division. After completion of this tour of inspection, I proceeded, during the past cold season, to Agra, inspecting the principal towns on the way. From Agra, where I had to be present under the orders of Government, to superintend the sanitary arrangements made in connection with the numerous camps assembled there during the time of His Royal Highness the Prince of Wales, I proceeded, by way of Bah Pinahat through Bundelkhand to Fatehpur, inspecting towns on the line of march. In all, I marched a distance of fully 1,500 miles, making almost daily sanitary inspections of centres of population, and examining mortuary Registers.

77. I propose in this chapter to record only a few important facts in regard to the principal towns inspected, as, under the orders of Government, I am not permitted to include in my Annual Report any lengthened account of proceedings or inspections made.

78. The principal towns of BIJNOR are *Chándpur, Bijnor, Najíbabad, Nagína, and Dhámpur.*

CHÁNDPUR.—Inspected on the 13th November. An account of this town and its sanitary aspect will be found at page 31 of my report for 1868, and it may be seen there that, in 1868, this town presented a much neglected and insanitary appearance. A very great amount of improvement has been effected in Chándpur. At this last inspection its principal thoroughfare and its public ways generally were seen to be kept in excellent condition of cleanliness, several made with kunkar—properly drained at each side—all the town site proper apparently well conserved. The rainfall drains to a vast excavation called Sátárá in the eastern and northern outskirts. An island at one part of this excavation is the mihtars' quarter; seen to be a very filthy place, with many pigs roaming amidst manure heaps, and general filthiness of impurity extending to the waters' edge around the houses.

The rainfall of the west and south drains to Chimmun Tál, a large excavation in the southern outskirt which overflows to the Sátárá. The Sátárá itself is drained by a cutting about two miles long which passes under the Umroha road by means of a bridge—but the floor of the bridge is too high—to reach low lying land to the east of the town. In the town there was great complaint of the rising of the waters in the rains in Sátárá, which overflows to flood the site and endanger the houses near it, some of which were seen to be in ruins from this cause.

The most important sanitary necessity for Chándpur is the drainage of this vast excavation, so that it may never overflow.

79. BIJNOR.—Inspected on the 16th November. Town well kept in all respects. If means can be provided, the Arunwála Tál, in the eastern outskirt, might be improved with advantage.

80. NAJÍBABAD.—Inspected on the 19th November. A detailed account of the town and its sanitary aspect will be found at page 27 of my Report for 1868. This town, which benefits by a very considerable municipal income, was noticed to be much improved. The principal roadways are made, or being made, with broken stone, and the result is very satisfactory. The newly made ways are raised in the centre, so that rainfall drains away very completely, and saucer drains even are not necessitated, which is a considerable advantage.

Principally, the rainfall drains away to a large ragged water hole called the "Phor." The "Phor" in its turn drains to the Málan river, which passes immediately north of the town.

The Phor might be improved into a shapely tank with much advantage. The Nagína road, which passes out of the town south-eastward, was seen to be much broken, but it is to be macadamized,—a very necessary improvement. Bordering this road, just outside the town, on both sides is a considerable region of excavations containing a large quantity of stagnant water. A vast brick kiln mound rises in the midst of these excavations, which have resulted entirely from the operations of brick makers. These excavations much require improvement into shaped tanks, and drainage. The earth of the brick kiln might be utilized to help towards this end, the drainage being effected to the Málan.

The principal business portion of this town—Manirganj and Bara Bazar—has been vastly improved during the past few years. It forms a chauk, or place where four ways meet, and the fine shops and durable cleanly roadways here would be a credit to any town of the province. A very careful conservancy seemed to be enforced everywhere in the town, which is evidently increasing in importance. Najíbabad is a somewhat isolated town far away in the north from any centre of authority, and the general appearance of marked improvement and better management there, as seen at this inspection, was very satisfactory.

Nawábganj, in the north-eastern portion of the town, the place of residence of the former rulers here, very much merits improvement. The north side of the ganj is bounded by the site of the Nawáb's palace, of which only the very fine gateway remains, now utilized as the Thána. Inside the Thána are the tahsíli buildings, and beyond a well raised much broken site, formerly part of the palace property. A new school-house and dispensary are to be built there, and the site is admirably suited for the intended purpose, being well raised and thoroughly drained to the river. The ganj proper, or square of shops fronting the gateway, needs attention. Some of the shops are in ruins, and a partly completed school-house, built on the remains of the old naubatkháná stands in the midst. This intended school-house, which has 14 steps to reach the entrance door, is not to be completed, as altogether unsuited for its intended purpose. It would be a good thing to remove it, clearing the surface of the ganj entirely, as unroofed buildings and collections of building materials in public places always foster the accumulation of impurities.

The public slaughter place at Najíbabad has been located at the former Nawáb's Bárádari in the midst of Nawáb Tola mohalla. The butchers are screened at their work by a very low wall, and altogether the site and arrangements are objectionable for this purpose. The houses in the immediate neighbourhood are inhabited mostly by Bhistis, and these people complained loudly of the slaughter-house as an offensive nuisance in the hot season and rains.

There are four public latrine enclosures situated in the outskirts of this town. Their walls were seen to be broken, and they did not appear to be much frequented, the inhabitants, as a rule, retiring to waste places well outside the town. This well-established custom should not be interfered with, but public latrines, which are a necessity for some feeble or timid people, are likely to be better managed when kept in good repair.

81. NAGÍNA—Inspected on the 21st November. The condition of this town in 1868, will be found in my report for that year, page 29. At this inspection much of improvement was noticed as the work of the past few years; especially in regard to cleanliness, a company of 24 sweepers being now employed for that purpose. Brick paved streets are here the rule, as neither kunkar or stone are found near the town. The bricks are set in patterns and form a durable and pleasant looking surface, so long as good bricks well set are used. For instance, the brick pavement of the Bara Bazar here was set 22 years ago and is good now.

Several roadways have been newly paved in this way during the past few years, and especially the highway of Lohari Serai, where a considerable society of Mahomedan carpenters reside, who have made Nagina famous by their work in carved ebony and in the making of wheels and carts. Formerly, the roadway here was low, unmade, and liable to flooding in the rains. The new raised brick pavement will thoroughly remedy this state of things and confer considerable benefit on these industrious people.

Although cleanliness and the making of public ways of durable surface have received considerable attention here, the drainage of the town site still remains unaccomplished. The surfaces of the newly made ways drain into the neighbouring lanes, and there the rain water stagnates to form mud. The side drains of the Burra Bazar, which receive impurities from the houses, terminate in a large cesspool sunk in a side lane on the north side; on the south side the drainage runs away down an unmade lane. The result was the existence of a dire nuisance in the midst of the town, which made walking there an unpleasant duty.

At one place the drainage is carried from the north to the south side by means of a drain under the roadway. In making this subway, the floor was sunk too low, or afterwards sunk, and now it acts as a receptacle for black, bad smelling, impurities.

There is a *gunda-nála* in this town which appears as a low lying lane. By following and perfecting its line, I think it would be possible to drain the town site to the river Koh, which flows two miles eastward of the town. The principal thoroughfares are lighted at night by means of 60 lamps.

Five public latrines, in the form of small masonry structures, divided into cells have been provided for the use of the townspeople. They were noticed to be well kept and in good repair.

82. DHÁMPUR.—Inspected on the 23rd November. Dhámpur is one of the best looking, and most improved, small towns in the Province. It answered fairly to that description in 1868, as described at page 32 of my report for that year. At this inspection the fact was more than ever apparent. For it was seen to be a town of brick-paved public ways, admirably kept in regard to cleanliness everywhere. Its principal bazar—wide, lined by handsome shops, the houses principally of dealers in iron plates and vessels, which are made in great numbers at Dhámpur, the iron coming from Háthras. Many of the smaller ways have been brick-paved lately, and altogether the town wears an aspect of neatness and good order not often seen in an Indian town. The municipal income is only about Rs. 3,500 per annum, and the appearance and condition of Dhámpur witness very favourably to the amount of good which may be effected by a reasonable expenditure. The sweepings of the town are sold for Rs. 30 a year and carried out regularly to be consumed in the brick kilns. The precincts everywhere around the town were seen to be cleanly kept, the cultivation coming close up to the houses. The Ekri *nadi*, a shallow natural water-way, runs past the town at its eastern border, and receives the water of excessive rainfall, when it overflows a large excavation in the eastern border of the town. I think if the communication between the excavation and the *nadi* could be made more direct the result would be favourable, from a sanitary point of view, as tending to prevent the accumulation of any great expanse of water there.

83. The principal towns of MORADABAD are *Moradabad, Amroha, Chandausi, and Sambhal.*

MORADABAD.—Inspected on the 1st December. I have inspected this city on several previous occasions, and reports concerning it may be found at page 38 of my report for 1868, and page 39 of the report for 1874. It is an improving city; indeed, is so much improved since 1868, as to be hardly recognized as the same. The quite recently made highway from the city to the railway station has, perhaps most

contributed to this change, but the mission church, in the midst of the city, and the high school at the eastern border have aided greatly in this direction. With the change in appearance has come a considerable change for the better in sanitary aspect. Cleanliness prevails everywhere about the city site, a sufficient conservancy establishment being employed.

The masonry built public latrines require a better management—one of them was noticed to be very offensive.

And the question of improving, to the utmost possible extent, the supply of drinking water, merits attention. The most frequented public wells should be cleaned out and repaired. The drainage tanks attached to them should be cleansed at regular intervals. At this inspection several of these tanks were seen to contain a considerable depth of impurities. This was especially noticeable in the ganj mohalla.

Notwithstanding these objectionable features, I am able to report a marked change for the better in regard to the sanitary appearance of this city. Much has evidently been done in a right direction by the municipal authorities, and at this inspection I could find no unpleasant or objectionable place or drain in the quieter portions of the city, where, formerly, they were easily found. The Sakkatua Nála was noticed to have been improved, its bed made with masonry for a short distance, so that the objectionable sewage it receives is carried further away from the habitations. I think as means accrue, it would be advantageous to continue the making of the bed to some considerable distance farther.

84. AMROHA.—Inspected on the 10th November. A report on this town will be found at page 44 of my report for 1868. At that time no municipal authority had been established in the town, and its sanitary condition was very bad. In 1873, a Municipal Committee of six members was appointed for the management of the town. The Municipal income now is about Rs. 14,000 per annum. Improvement, as yet, is noticeable principally in the better making of the public ways ; this is the first essential of sanitary requirement in an Indian town, and considerable progress has been made in that direction ; and a great advance in regard to general cleanliness of the town site was apparent at this inspection.

The improvement of the excavations which exist in some places amidst the houses and are receptacles for stagnant rainfall, very much calls for attention in this town. I think if the smaller excavations could be filled up and the larger made into tanks with even sides and brought into communication, they might be utilized for the drainage of the town site after heavy rainfall. But this very great and necessary improvement can only be effected after careful survey of the site. And it is absolutely essential that the excavations amidst the habitations should be brought into communication, by means of a carefully effected cutting, with the nearest natural drainage channel leading down to the Baun river, or, if none such exists, with the nearest commencing channel of the Sot or Yár-i-wafadár nadi, which takes its rise just south-west of Amroha. This matter of efficient drainage after heavy rainfall is a matter of grave importance to the people of Amroha. The site of the town is low, and I heard much complaint of the general condition of mud and moisture which exists at all places of unmade surface for many days after heavy rain. Such drainage as exists is by low roads to Púranpur jhíl, four miles south-east of the town, but the outlet is hindered by the cultivators.

A second important matter is the establishment of a slaughter place outside the habited limits. In 1868, I called attention to the very insanitary state and the objectionable situation of the slaughter place in this town. Amroha is especially a Mahomedan town and much meat is eaten there. At this inspection two slaughter places were seen in the midst of the habited site ; at one an average of 7, at the other

an average of 12, cows are slaughtered daily. The latter, in Shaffátpotá Mohulla, is a yard, about 20 yards square, with houses close hemming it. The Syud residents of the neighbourhood and the schoolmaster of a school where 60 boys were being taught, were earnest in their complaints of the nuisance arising from this slaughter-yard. The former is a smaller yard, also neighboured by houses; near to it is a small excavation, filling to one side with decaying bones and skulls and other refuse of the yard. This is one of the small excavations before mentioned which should be filled up.

85. CHANDAUSI.—Inspected on the 8th December. A previous report on this town will be found at page 39 of my report for 1868. At that time the municipal income was very large, and a sum of Rs. 54,000 had been accumulated and was invested. It seems not unlikely that the octroi collections were increased by the taxation of goods in transit. However, the octroi here has now been abolished and an income of about Rs. 12,000 a year provided by means of a tax on trades and professions, after the Cawnpore model, and the present income is considered sufficient.

In my report for 1868, I described the then apparent prosperity and business importance of Chandausi as evidenced by the crowded state of the paraos, or standing places for carts, from which alone, by the sale of cow-dung fuel, an income of Rs. 1,500 was realized by the Municipality. At this last inspection a great falling off was noticed in this respect. The paraos were seen to be almost empty and now the income realized from the sale of the fuel mentioned is only Rs. 325. This loss of position to Chandausi, as an emporium of country produce, was said to have resulted from the opening of the railroad to Moradabad. But, from whatever cause it has resulted, it is certain that Chandausi does not in 1875 present anything like the aspect of prosperity it did in 1868.

In regard to the surface of the public ways, Chandausi is a town of brick-paved lanes supplemented by several kunkar made principal roadways, the result of recent improvement, and in no town with which I am acquainted in the Province is the general surface more durably made or neatly kept. The brick-paved lanes are drained in the centre by quite shallow drainage ways, and in some places in them moist impurities, which ought to have been removed, had been allowed to accumulate. In a few places cesspools, which received and retained house drainage, were observed. But, as a rule, a very commended condition of cleanliness and a resulting freshness of the air was noticed in all parts of the inhabited town site.

In the outskirts, things were different, and especially the old town ditch called Parkotá, which closely skirts the west and south margin of the inhabited site to end in a region of excavations called Khúrja Darwázá Tál, was seen to be very much neglected. The contents of the drains of the brick-paved lanes are swept into it and there allowed to lie in the shallow, black, pools. One of these pools was seen to be about 50 yards long. A ditch so misused is pretty sure to become a public latrine place, as this also was—a public latrine place hard to walk in at places, for thick set fœcal impurities never removed.

On the further side of the Parkotá only very low caste men, and principally, sweepers, reside. One of these people was noticed to be building himself a new house, digging the earth for the walls from the ditch and moistening it with the sewage from a neighbouring pool. And I suppose it results from house building operations that the bed of Parkotá is cut into holes, excepting at that part which comes immediately into view at the town entrance way, on the west side. On the east side, the town site is drained in the same way to a ditch, which also ends in the Khúrja Darwázá Tál.

The contents of the ditch passing through a grating of bamboo fall down into a small excavation from which a broken cutting leads to the tál. The excavation contains a small pool of sewage.

These are undeniable evidences of neglected conservancy. The diches mentioned ought to be kept as carefully as the highways, and only surplus rainfall be allowed to run away in them. Impurities of every kind, fluid and solid, ought to be carried out to the fields to be used as manure.

The tál, to which all the rainfall drains, is in connection with the Sot Nadi by means of a cutting which effectually prevents any flooding of the town site. But the tál itself is a dismal looking excavation of great extent in which a wide sheet of water stagnates for many months of the year. I think no work of improvement would have a better result, from a sanitary point of view, at Chandausi, than that of bringing this excavation into shape, and planting the land recovered along the margins with umbrageous trees. In this matter, the Municipal authorities have a work of first importance ready to hand—a work the permanent advantage of which would be evident to the meanest capacity—and, if done with discretion, the result cannot but be satisfactory in all respects.

86. SAMBHAL.—Inspected on the 5th December. A report of the former condition and sanitary appearance of this town may be found at page 43 of my report for 1868. Then it was seen to be a much neglected town. Since that report was written a Municipal Government has been given to Sambhal. The income of the Municipal authorities is about Rs. 15,000 per annum. 43 public sweepers are employed. At the inspection of which I now report, a very great improvement, in regard to cleanliness and levelling and consolidation of the public thoroughfares was apparent. Where formerly impurities were found in considerable quantities in the town site, now nothing of that sort remains. In the *Kot* portion of the town, where the brick built houses covered the site, neglected cesspools were noticed, but with this exception, the town site and precincts were found absolutely clear—a noteable change well worthy of record.

Sambhal, taken in its entirety, is a very large and important centre of population, for around the town proper are several sarais, apparently in former times the residences of Mahomedan nobles, which now are small towns of more or less importance ; and in the local belief Sambhal is divided into three principal portions, Sambhal, Sarai Tarin, and Ayátnagar—consisting in all of 30 Mohallas, containing about 47,000 inhabitants. I think it is very satisfactory that the principal place and centre of this thickly peopled site should have been recovered to a condition of fairly good sanitary aspect. The chief requirement now is an improved outlet for flowing rainfall. The town site drains to the Retla, a vast excavation around the west and north margins of the site, and I heard much complaint of flooding in and around the inhabited site after heavy rain, because of the overflowing of the Retla.

From what I saw, I think there would be little difficulty in thoroughly preventing this trouble and cause of disease, by the making of an efficient cutting of no considerable length from the Retla, in a southerly direction, to reach lower ground there.

87. The principal towns of BUDAUN are *Budaun, Bilsi, Ujhání, and Sahaswán.*

BUDAUN.—Inspected on the 18th December. A previous report on this town may be found at page 61 of my report for 1868. In that year many evidences of good town management were noticed and recorded. At this last inspection, the work of improvement was seen to have made much progress in late years, and the existing condition of Budaun is most creditable to the municipal authorities. The most important improvement consists of a new kunkar made roadway which encircles the town upon the upper surface of the earthwork which formerly served as a rampart, and the public ways everywhere, great and small, with the exception of two lanes, have been consolidated either with kunkar or brick pavement. The result is that communication can be effected between all parts of the town, in all weathers, with a great amount of comfort. In respect to this matter, I think Budaun is in advance of any large town in the province.

Carmichael-Ganj, the principal market place, was seen to be in admirable order. Its roadways have been planted on either side with orange trees, carefully tended and growing vigorously. A pleasant adornment which cannot be seen anywhere else in a place devoted to business, in the province. The old bazar in the eastern outskirt of the town is another and perhaps more important business centre. One part of it has a bad sanitary aspect by reason of the existence of a large excavation of broken sides and surface called "Panáyá." I was glad to hear that the municipal authorities intend to level this excavation. The result will be a very commendable improvement and the creation of a valuable site.

Absolute cleanliness appeared to reign everywhere in the town site and its neighbourhood. Here and there dark coloured moisture was noticed in a side drain of the Kazi and Sahokár Mohallas, and one private collection of sweepings forming a manure heap was seen amidst the houses. But the general aspect was that of a carefully kept and highly respectable town, and the hours I spent in it are noted as a pleasant time in all respects. The public wells here are brought under management, kept in good repair, their surrounding surface and drainage tanks carefully swept and cleansed.

The celebrated juma mosque here is in course of repair, the houses of the inhabitants are in good repair. The rainfall drains by means of a deepish cutting, passing under the houses in one place, to the Yar-i-wafadár river, which skirts the town site on the west and south sides.

88. BILSI.—Inspected on the 14th December. Since my previous inspection of this town, notice of which may be found at page 63 of my report for 1868, the municipal income, which was perhaps in excess of the requirements, has been reduced to Rs. 4,500.

With the former comparatively large income of about Rs. 8,000, a very considerable amount of improvement was effected. Principally by consolidating the public ways, which are now almost without exception made with kunkar. And a kunkar made way has been formed around the town, in good part encircling it, with considerble advantage in regard to the cleanliness and levelling of the town precincts.

The surface of the market place has also been improved.

The conservancy of the town site seemed to be fairly well effected, the sweepings effectually carried away, the principal ways are admirably kept, the main bazar way neat in all respects, but the overhanging eaves of the otherwise good looking shop fronts were seen to be likely to fall down soon.

In the eastern outskirt and immediately adjoining the habited site is a vast excavation called Pajawa-wala-Talao, containing 12 feet in depth of water in the centre, the sides showing a considerable surface of broken land and bank on which pigs were roaming. During the season of rain this must be a region of moisture and mud, which in drying up is likely to be a cause of fever disease.

This large broken site has not been brought within the municipal limits. I think this is to be regretted for it is a place of very bad sanitary aspect, and its levelling, in some considerable measure, and its better management in regard to conservancy and the planting at least of a line of trees between the water and the habitations, might well engage the best attentions of the municipal authorities.

89. UJHÁNI.—Inspected on 16th of December. A former report on this town may be found at page 63 of my report for 1868.

The municipal revenue here has been reduced to about Rs. 3,000, in 1868 it was about Rs. 5,275. At this last inspection, the town was seen to be much improved in several respects. Its conservancy especially, more carefully effected, some of its principal roadways consolidated, a new sarai in process of construction. The bazar is

poor looking, the shops, as a rule, mean, some of the houses there ruinous. The precincts of the new school-house, a fine looking masonry structure, have been enclosed by an ornamental wall, the formerly much broken part of the site has been terraced to form a play-ground. A great improvement, which would be perfected if the lower portion could be levelled. The wall has been built with deep plinth for that purpose.

The town site is well raised, and drains perfectly to a great jhíl to the south of the town, called "*Ghotain.*" An important drainage channel, which commences in the lands of Shahzádnagar, some eight miles north of the town, passes through its eastern portion. Inside the town it appears as a cleanly kept sunken roadway; outside the town it appeared as a filthy public latrine place. It is not perhaps unsuited for that purpose, but it should be brought under control, the resulting impurities buried daily.

At one part of the town, near to where a bridge crosses the channel, the latter has been broken into an excavation. I think this excavation should be levelled and the channel confined to its proper course.

90. SAHASWÁN.—An isolated place of 12 widely scattered mohallas, several forming separate villages. An important centre of population notwithstanding, possessing a municipal authority controlling the expenditure of an income of about Rs. 6,800. The amount obtained principally by a graduated tax on property or estimated income. Much of improvement was seen to have resulted in the different portions of this municipality from the well controlled expenditure of recent years.

To the west of the principal centre of population is a large lake or jhíl, the "*Dhundh,*" which collects all the surplus rainfall of the surrounding country, and overflows to its southern extremity into the Mahawa nadi. By reason of this jhíl communication to the west was quite cut off for many months of the year, and Mohiodinpur, a mohualla of the municipality, was quite isolated from the remaining mohallas. In 1874, an embankment, fully one-third of a mile long, and bridged in the centre, was thrown across the "*Dhundh.*" The embankment is consolidated on the top with kunkar, and provides a durable roadway of very permanent appearance. The work is said to have cost only Rs. 800, and if that is correct, the result reflects great credit on the makers. It is a work of public utility much appreciated in the neighbourhood.

Owing to this improved means of communication, Mohiodinpur has been much improved, its roadways repaired, its cleanliness perfected. Two roadways lead out of it to the west—one to *Gunnaur*, the other to *Kariami*. Both have been raised for a short distance, but soon end in low lying cart tracks almost impassable in the rains. The latter especially, ending at a widish natural drainage way. Many people from Sahaswán visit the Friday market at *Kariami*. If this drainage way could be embanked and bridged after the "*Dhundh*" plan, it would be a work of great utility, and very popular locally.

In Sahaswán khas, the roadway has been consolidated with kunkar and properly drained. This is continued through the bazaria, the smaller lanes of which might be levelled with great advantage and at little cost, as much earth of durable, binding, quality exists at Sahaswán, as in all places where much rice is grown.

In Saifuláganj the principal way is made with brick pavement in course of repair. In the Sahokár portion a new way is making with kunkar. This separate mohalla is joined to Wilsonganj by means of a kunkar made highway branching so as to enter the mohulla at two places.

Wilsonganj, a comparatively recently formed mohulla in the neighbourhood of the tahsíli, thána, and dispensary, consists principally of a sarai, a few shops, and an abkari godown. All the more official portion of the municipality is scattered along the Gannaur road which passes to the south of Sahaswán proper. In all the widely scattered centres of habitation which form this municipality, a very considerable

attention is given to the matter of conservancy. The general sanitary aspect is good, the wells numerous and fairly well kept, the water very good. The inhabitants everywhere appeared to be healthy and strong.

The principal towns of BAREILLY are *Bareilly, Pilibhit and Bisalpur.*

91. BAREILLY.—Inspected on the 21st of December. Previous reports on this city may be found at page 53 of my report for 1868, and page 39 of my report for 1874. In both reports the sanitary aspect of this city is described as unsatisfactory. At this last inspection the aspect was not seen to have improved; rather, I think, the appearances of neglect were more marked, and I have noted of this city that it was by far the worst in regard to cleanliness of any large centre of population I had inspected during the year of which I report. Having completed my inspections for the past year, I think that note expresses the exact fact. And it is certain that Bareilly, the principal city of Rohilkhand, is also the least worthy of mention in regard to sanitary improvement. As compared with Budaun, the neighbouring city, the difference is very great indeed.

In all mohullas of Bareilly, at this inspection, the open drains and cesspools of the lanes were seen to be filthy, as though very seldom cleansed. In Shahamatganj mohulla, the byelanes were very filthy from this cause. In Moti Lal Bazaria, a deep, wide, open masonry drain half filled with bad smelling impurities was noticed. The drain ends in a ditch, but the contents of the drain and the ditch are stagnant.

In some mohullas the open drains had overflowed, the contents running down even to the principal bazar way, Inglisganj.

The surface about the wells in many places was seen to be unpleasant with much of moisture and mud, the drainage tanks of the wells, in good part filled with impurities, having overflowed. On all sides of the city the drainage ways end in ditches, some of which contain large quantities of semi-fluid sewage.

The public latrines, of which there are 14, in the shape of fenced enclosures, easily changed, are generally well managed, but a much frequented enclosure of this kind was noticed in the northern portion of the city, situated between two excavations there, and it was seen that a great many people had obeyed the calls of nature outside the fence. All these evidences of neglected conservancy were recognized and deplored by the native officials who accompanied me at my inspection, and the negligence of the Girdawur Safai (Inspector of nuisances) was said to be the cause. I suppose this is true, as 86 public sweepers are employed at Bareilly, besides, as I understood, 10 sweepers attached to the public latrines, and 14 attached to conservancy carts. I think it is likely that the use of iron conservancy carts of modern construction, suitable for the removal of fluid impurities, might be of great use at Bareilly.

92. PILIBHIT.—Inspected on the 26th of December. A former report on this town may be found at page 55 of my report for 1868.

At this last inspection, the sanitary condition of this important town was seen to be much improved, especially as regards its better conservancy, for which purpose a sufficient company of public sweepers is now employed, and the public thoroughfares have been repaired, and in several instances durably made, many of the smaller lanes participating in this improvement. Open filthy drains and cesspools are, however, still too common; indeed, nothing could be more unwholesome than the condition of the great open drain which leads from Drummond Ganj to the outskirts of the city in an easterly direction. In some places wooden seats fronting the shops cover the drain, which, below the seats, was seen to contain a considerable thickness of stagnant semi-fluid impurities, being deposit from house sewage. As at Bareilly, so I think at

Pilibhít, the use of improved iron conservancy carts, suitable for the removal of fluid impurities is very desirable. The town site drains to the Deoha, which skirts the town on the west side, and the principal drainage channel is the old ditch of the town when it was fortified. This Shahr-pannáh excavation skirts the east border of the town, then turns to the west, then to the south, to fall, lastly, *then*, into the Deoha. I think it might be easily possible to improve this great drainage way by curving its angles, carefully, levelling and consolidating its bottom. Fashioned in this way, it would facilitate the speedy removal of excessive rainfall, an important sanitary requirement at Pilibhít.

The place of most prominent improvement in this town is in the western outskirt, where the new school-house, the fine old mosque, and the dispensary, are situated. The open space dividing these buildings has been enclosed and planted, unsightly mud huts, which hemmed the mosque, removed, well made roadways provided. The result is very satisfactory. I should add that in all parts of the town evidences of progress in regard to sanitary improvement were noticed, and certainly the municipal authorities, and especially Mr. Lamb, the President of the Committee, are alive to the necessity, and anxious to effect such improvement.

The public latrines, recently provided, cellular masonry structures furnished with flat pans removable by a centre way, were seen to be well kept and much frequented. Their popularity and usefulness will depend entirely on the reality of the cleanliness effected within and around them.

My experience has not prepossessed me in favour of public latrines after this model; fenced enclosures admitting all the air possible are better suited to a hot country, but be the form what it may, success or failure depends upon the efficiency of the supervision provided.

90. Bísalpur.—Inspected on the 30th of December. A former report on this town may be found at page 56 of my report for 1868. At this last inspection, it was seen to be much improved. The municipal revenue is now about Rs. 3,484 per annum, and a very great amount of good is being effected by the means thus provided.

The numerous excavations which have existed here for many years in the town site and especially in the south and east outskirts, were they are called "Budhera," from their extent, have been brought under control, their margins cleared and kept free from impurities. The sanitary aspect has been much improved by this measure. A very good looking new market place has been made, the new shops enclosing it being uniformly and durably built. Situated in the midst of the town, and admirably kept in all respects, it adds very greatly to the good appearance of the town. A wide, well made, roadway passes from the Ganj to the eastern outskirt, and is now the principal way in the town, a deep square open drain has been constructed to one side of it for the removal of excessive rainfall to the Umeri Nadi. Drains of this nature are not suited to a town site, they are dangerous to children and animals and can with difficulty be kept clean. Rainfall will run away as readily in a wide shallow channel as in a deep narrow one.

The official region in the southern outskirt where a dispensary, school-house, tahsíli, and thanna, and munsifi are situated on the Khudaganj road, was seen to be well kept in all respects, but the roof of the munsifi propped with poles looked dangerous to life.

The great house of Dubeh Shamacharn, in the northern quarter, faced by a fine square, masonry tank with Dharamsalas, all in good order, gives a pleasant appearance to the town on that side. Cleanliness was seen to be maintained everywhere in the town.

There are no public latrines, and they are not required, the inhabitants retiring to places outside the habited site and beyond the excavations. A considerable

amount of sanitary improvement might be effected by the filling up of all quite small excavations. For example, where the highway from Pilibhít to Tilhar passes the town at its western border, between the road and the town site, is a longish excavation of bad sanitary aspect. If it could be filled up and the space planted with trees, the appearance of the site on that side, now ragged and unwholesome, would be infinitely changed for the better. It would be a permanent improvement of the best kind. The great "Budhíra," when pretty full of water, drains towards the Deoha beneath a bridge carrying the Sháhjahánpur high road. If anything can be done to facilitate the outflow in this direction, it would be likely to benefit the health of the inhabitants, by decreasing the amount of stagnant moisture, which in great part surrounds the town for many months of the year. At present, fever disease is very prevalent in all years. Certainly, much has been done by way of sanitary improvement in the past few years, as described above, and I should add a word of praise for the well made roadways of the bazar, four in all, which meet to form a *chók*. They are all made with kunkar and properly drained with saucer-shaped drains. The pressing sanitary requirement now is the decrease, to the utmost possible extent, within reason, of collections of stagnant moisture—gathering all the surplus rainfall to the "*Badhíra*," and improving its channel of outflow.

94. The principal towns of SHÁHJAHÁNPUR are *Sháhjahánpur and Tilhar.*

SHÁHJAHÁNPUR.—Inspected on the 6th of January. A previous report on this city may be found at page 67 of my report for 1868. In that year it was a well managed city and much of improvement has been effected since then, especially in regard to road making. At this inspection, the conservancy of the town site was seen to be well effected, as regards surfaces and shallow drains, but some of the principal rainfall drainage channels were noticed to be neglected. I think it cannot be too much insisted on, that these channels, which exist in the neighbourhood of every town, should be kept as carefully as the fine highway which runs through the centre of the town. Now, at Sháhjahánpur, the Rang mohalla nála, one of these channels, wide and straight, was seen to be in some considerable measure filled with black, stagnant, bad smelling sewage.

The kucha Katra nála was also noticed as a place where sewage stagnated. Both are in the outskirts of the town and receive the sweepings from the city saucer drains.

Also, in the midst of the city, at one part of the finely kept highway, the drainage from the saucer drains was seen to stagnate in cesspools which had overflowed, forming much bad smelling mud.

Sewage of this nature ought to be carried out of the town by means of properly constructed iron carts, and certainly not be permitted to stagnate in the rainfall drainage channels. The public latrines, set up at the angles of the roadways, require repairs. They did not seem to be kept with such care as formerly.

With these exceptions, I think Sháhjahánpur is an admirably kept city, in which very great attention has been given to sanitary improvement by the municipal authorities. But I would urge the advantage of the improvement of the natural drainage channels which lead down to the rivers Garra and Khanaut, between which the town site stands.

95. TILHAR.—Inspected on the 4th of January. Tilhar consists of Tilhar proper, Pátaganj and Hindu pati. A former notice of this centre of population may be found at page 69 of my report for 1868. At that time Tilhar had no municipal government now it is a municipality with an income of about Rs. 9,000 per annum.

It stands in the midst of a sugar producing country, and is notable as a centre of the sugar trade, there being about 50 sugar manufactories within the municipal limits.

A very considerable amount of improvement has resulted here from the establishment of a municipal authority. A raised highway has been made between Dátaganj and Tilhar. Several of the public thoroughfares have been paved with brick or made with kunkar, especially the Chôhatia bazar and Kucha Katra bazar in Tilhar.

Public latrines of a very superior kind have been erected. They resemble masonry houses, were seen to be well kept, but not apparently frequented by many people.

The Tilhar site drains to "Pirghaib," a large excavation in the midst of the site. the Pirghaib overflows to the Siró, a branch of the Deoha river. The principal portions of Tilhar municipality stand round the Pirghaib, Dátaganj to the north, Tilhar and Hindu pati to the south, Biriaganj, Kourganj, Chodéganj, and the Gour mundi to the west. Orders exist to the effect that earth may be dug and carried away only from the Pirghaib excavation. If these orders should be effectual in bringing this vast excavation to a more shapely appearance, the result would be satisfactory from a sanitary point of view, for at present it is a vast, irregular shaped pond, containing a great amount of water, which, in considerable measure, dries up in the hot season, leaving a broken surface of dried mud.

There are smaller excavations in other portions of the site, and especially in the neighbourhood of the school-house—off the raised road, between Dátagunj and Tilhar—there is a shallow excavation of bad sanitary aspect which might be levelled with great advantage at little expense. At the same time the compound of the school-house, seen to have a much broken surface and generally neglected appearance, might be levelled and planted with trees. The result would be great improvement in the town site at that part.

Taken in its entirety, the Tilhar municipality is a very important centre of population, I think more important than is generally known, and since the railway station has been opened, the business of the place has increased. The trade in gour is especially large, the gour mundi presenting a busy appearance, its surface crowded with carts and piled with gour.

In a place of such wide extent a good conservancy is hard to effect. As a rule cleanliness reigned, but the principal drain of Dátaganj, which runs out under the gateway of the main street, was seen to contain much stagnant sewage. Also the drainage from a much frequented well in the same part of the town was seen to form a long line of stagnant bad smelling filthiness. The great drain first mentioned runs out to end in a broken piece of land, at one side of which the ruins of a mosque and tombs remain. The space is frequented as a daily market place for the sale of vegetables and other food brought by the country people. It might be readily improved into a commodious shady market place, to the advantage of all frequenters.

The grain market, Chodéganj, is important. Its surface is low and drains to the centre, at one corner is a shallow excavation. The site much merits improvement.

No form of improvement would have such good and permanent sanitary effect, as the levelling of small excavations which may be found without difficulty in the town site. Something in this direction is, I think, to be done at one excavation to the side of the bazar way leading to the railway station.

96. FATEHGARH inspected on the 10th January. This town is near to the residences of the European officials and is much frequented by the soldiers of the garrison. It forms part of the Farukhabad municipality and benefits considerably by that arrangement. A previous report on this town may be found at page 21 of my report for 1869. At this last inspection many proofs of improvements were noticed and especially the new sarai cannot be too much commended. Its plan, architecture, and construction are admirable, and the arrangement providing a light iron railing by way of partition

between the sarai enclosure and the public gardens which adjoin it, is likely to add very considerably to the comfort of travellers who may visit the sarái. Certainly it considerably improves the sanitary aspect of the sarai. With the exception of the very fine new sarai now building at Chandausi, I think this Fatehgarh sarai is the best modern structure of the kind in the province. Of course neither will compare for grandeur with the great sarais of Akbar's time, but they are a great improvement upon the ordinary sarai of modern times.

The fine highway, being the road to Cawnpore, which runs through the centre of Fatehgarh, was seen to be well kept in all respects. The new Gola, an important business centre, opens off it. The Gola itself appeared to be well kept, but behind it a collection of sweepings forming a manure heap was noticed, which ought not to exist there, and a much frequented well, near to the heap, was seen to be much neglected, its drainage not properly provided for, its surrounding surface filthy. Behind the Gola is a deep nála, the natural rainfall drainage channel of Fatehgarh. People were seen to be frequenting it as a public latrine place, which should not be permitted in the immediate neighhourhood of the town.

The old Gola is on the other side of the highway, hidden by the houses which border it. This Gola is a brick paved bazar, fairly kept; the bricks however broken into holes in places, and the surface around the good well in the midst, neglected, filthy as though never swept. With ordinary care this tree-shaded spot might be made a very pleasant place of business.

97. MAINPURI.—Inspected on the 14th January. A previous notice of this town may be found at page 35 of my report for 1869. At this last inspection one altogether extraordinary improvement was noticed, an improvement such as I think has not been effected in any other town of the province since I have been in office. It consists of the conversion of a large water hole amidst the habitations, into a six-sided tank of eleven kunkar block steps, and one ornamental stone built tower at every angle; the whole surrounded by an even durable roadway ornamented with lamp posts and trees. Formerly the water-hole was unwholesome in appearance to a degree, and the changed aspect of the place seemed quite marvellous at first sight, as I well remembered the bad looking water-hole, but had heard nothing of its improvement. The tank, now called "Lane tank" contains six feet in depth of clear canal water which it retains perfectly, the bottom having been made with nine inches in thickness of rammed kunkar, a circumstance and result worthy of record for the information of other tank makers.

Notwithstanding this great and most commendable improvement, I do not think the general sanitary aspect of the town has improved since 1869, especially in regard to conservancy. Although a company of 62 public sweepers are employed the result is not satisfactory. For example the public latrine in the centre of Rickettsganj (now a sarai), was seen to be neglected and very filthy, and just outside the back gate of the sarai a great heap of sweepings exists, and a large pool of dark coloured sewage, being sweepings of the sarai drain, in good part filled the lane there.

At the western extremity of the town is a small bridge which carries the main roadway above the Gunda Nála. Near to and beneath the bridge a pool of bad smelling sewage was noticed. Following the Gunda Nála in a northerly direction it is found to end in a large excavation with broken sides and containing dark coloured water. Where the nála and the excavation meet is a Mahomedan burial place or Takia, and this has been utilized as the place of deposit for fœcal matter taken from the private residences. These impurities lay there thick upon the ground, in such quantity and shameless fashion as I have never seen before in any town. At Gunga Sahai Vakil's house in Gariwan muhalla three streams of filth were seen to be running across the public way. Near to the Rája's Fort a vast cesspool full to the brim with bad smelling impurities was noticed. From the well near to the rising entrance-way of the fort, a large pool of filthy water, overflowing to form a line of bad smelling mud, existed. In the northern

portion of the town, and especially in Rája Bazeria, the brick saucer drains of the public ways were seen to be neglected, filthy, with moist impurities, in some places collected into small pools in the midst of the way. The fine stone lamp posts of the principal way, provided some years ago, carry no lamps now, which adds to the appearance of neglect, noticeable more especially in other portions of the town. With that exception the main way is well kept in all respects, excepting in the neighbourhood of the bridge as before mentioned.

The excavation into which the Gunda Nála runs is called "Ganesh Mandil Tank" because of an important temple of that name which borders it at one part. The Gunda Nála and Ganesh Mandil Tank are the commencement of the principal rain-fall drainage channel of the town site. From the tank the channel continues as a nála, which goes eastward to reach the Isan river, which passes the town at a distance of about a mile from its eastern border. The very best possible sanitary improvement at Mainpuri would be the better fashioning and management of the Ganda Nála and Ganesh Mandil Tank. If the means could be provided for fashioning the latter in some measure after the plan of the "Lane Tank," the improvement would be of permanent benefit to the townspeople, and perhaps expenditure here would be popular, as tending to improve the precincts of the much frequented Temple.

98. FIROZABAD.—Inspected on the 17th of January. A previous report on this town may be found at page 61 of my report for 1869.

Something of sanitary improvement was noticed at this last inspection. Especially the conservancy of the town was seen to be more carefully effected, and a newly made public way which passes through the southern portion of the town considerably improves the sanitary aspect there. In the northern portion of the town the public thoroughfares have been repaired and in some places newly made with kunkar.

A new dispensary has been provided; it is well situated about the centre of the town, and is a very great improvement upon dispensary accommodation which existed here in 1869.

The slaughter place, situated in the eastern outskirt, consists of a small enclosure, but the butchers were seen to be slaughtering cattle outside the enclosure. The site there is much broken, the surface cleanliness neglected, dogs were numerous, and the general aspect unwholesome.

Many of the lanes in the town are low; the surface broken in places. They might be raised and repaired with earth at little expense, to the great improvement of the site generally. The site around the school house, which is situated within the town opposite the tahsíli, might be levelled and planted with much advantage.

99. AGRA.—At Agra I was engaged during several days in superintending the sanitary arrangements provided in connection with the many camps assembled there during the visit of His Royal Highness the Prince of Wales.

The measures taken on this occasion to ensure the good sanitary condition of the many camp sites were exactly those described in my report for 1873, at pages 20 and 21, as having been enforced at the durbar assembly of that year. In 1873 the number of people assembled fell short of our expectations, because, at the last moment, the Native Princes were requested to attend with a diminished retinue, but in 1875 the Princes arrived, as might be expected, with full retinue and escort of servants and soldiers, horses and elephants. The timely arrangements made on this occasion were fully equal to the requirements.

The perfection of these arrangements and the reality with which the necessary sanitary measures were effected are due entirely to the ceaseless energy and fertility of resource of the Magistrate of Agra, Mr. James Simson. The arrangements had

been perfected long before a tent was pitched; the camps fell into their allotted places with perfect order on their arrival; surplus animals were immediately drafted away to depôts situated in the open country.

The spaces provided were found amply sufficient for every camp which arrived, and no hurtful over-crowding was seen anywhere. Shallow pits were provided in the rear of every camp for the reception of surface sweepings, or for the immediate burial of anything likely to be hurtful by decay. The trench system of public latrines, the trenches being carefully fenced by movable screens, was most effectively introduced. Thousands of persons visited the trenches daily, the resulting impurities were plentifully and continuously treated with dry earth, new trenches brought into use daily, and the result was most satisfactory. An adequate staff being provided and carefully controlled, nothing of unpleasantness was at any time perceptible, and when the camps were removed, the ground appeared, but for here and there a broken surface or a little stable litter, as clean and carefully kept as before the site was inhabited.

100. The following rules relating to sanitary matters, together with others relating to police arrangement, were widely circulated to all concerned. The distribution of camp duties was also carefully laid down in a series of 20 rules, by which every official interested in the good management and success of the assembly, could learn the exact duty required of him.

These rules were prepared by the Magistrate, and in regard to those relating to sanitation, I can witness to their goodness and their effectual observance :—

Rules prescribed for the arrangement and administration of the Camps of the Mâharâjas and Native Chiefs.

I.—At least two clear days before the arrival of each camp, the vakîl or other official in charge will give specific information to the Magistrate as to the health of the camp followers during the week immediately preceding. Should any cases of cholera or small-pox be reported on the march, the camp will be halted at the nearest camping place to Agra, and the instructions of the Magistrate be awaited.

II.—On the arrival of each camp, the exact camping ground allotted will be pointed out by the officer in charge of the ground, and the camp followers will be restricted to the use of the ground thus indicated.

III.—In every case, a clear roadway will be left between the entrance to the camp and the durbar or principal tents, which will be pitched at a distance of 200 yards from the high road, and the remaining tents will be pitched in such a way as not to obstruct the roadway, or to be objectionable on sanitary grounds. In this respect the Magistrate will exercise a general control.

IV.—A vacant space has been left between every two camps, which must on no account be encroached upon.

V.—The entrances to each camp have been indicated by a red flag on each side; the spaces to be left vacant, by white flags.

VI.—Immediately after the arrival of each camp, the whole of the spare elephants, camels, carts, and carriages will be despatched in charge of a police officer to the cattle and baggage depôts fixed for the purpose at Kakuba and Rohta on the Gwalior road. When required, they will be brought back under the orders of the Magistrate or the Deputy Inspector-General of Police.

VII.—Elephants required for the procession or for ceremonial visits, need not be sent off to the cattle depôts ; but space for only five elephants can be allotted within the actual limits of each camp.

VIII.—Written permission will be given for the retention in camp of horses required for daily use, a list of which will be furnished to the Inspector-General of Police by the Agent of each Chief. Horses must not be picketted between the high road and the durbar tents.

IX.—Latrines have been constructed in the rear of each camp, to which regular establishments of beldars and sweepers have been attached. All persons are strictly prohibited from satisfying the wants of nature in places other than those latrines, and mounted patrols in the rear of the camps will see that this order is strictly enforced. Offenders against this rule will be made over to the police or other Magistrate for trial under Section 34, Act V. of 1861. A native officer should be specially appointed in each camp to see that these orders, as also such further orders as may be laid down hereafter by the Magistrate or Sanitary Officers, are strictly observed.

X.—Daily reports of the health of each camp will be furnished to the Sanitary Commissioner and the Deputy Surgeon-General, to whom immediate intimation should be given of the occurrence of any case of cholera or epidemic disease.

XI.—Two temporary hospitals for the treatment of the sick have been constructed on the eastern and western sides of the Gwalior road camps, and one for the use of the Ajmiri-darwáza road camps.

XII.—In each camp site, wells which contain water suitable for drinking have been indicated by flags, and it will be the duty of the native Sanitary Officer to see that wells allotted for drinking are not made use of for bathing purposes.

XIII.—The usual supplies will be provided by the Government Tahsíldar, at the price current, from depôts established in each camp ; all demands should be paid for in cash at the time of purchase, and it is recommended that, as far as practicable, supplies requisite for two or three days be taken at once, so as to obviate the necessity of frequent applications.

XIV.—The location of camps on the Gwalior road is as follows :—

(A.)—On the right of the road.	*(B.)—On the left of the road.*
	(Ice pits.)
MAHARÁJA, BUNDI.	MAHARÁJA, KIRROULI.
„ KISHNGARH.	MAHARAO RÁJA, BIKANÍR.
NAWAB, TONK.	NAWÁB, RÁMPUR.
MAHARÁJA, URCHA.	MÁHARÁJA, DATTIA.
„ CHIRKHÁRI.	RÁJA JANOJI BHAUNSLA.
RÁJA DHIRÁJ, SHÁHPUR.	„ SULEIMAN SHAH.
„ TEHRI.	JAGIRDAR, ALIPURA.
„ KÁSHIPUR.	FOLLOWERS, RÁNA DHOLPUR.
FOLLOWERS OF NAWÁB OF RÁMPUR.	

The Rájas and Chiefs not mentioned above, will encamp on the road leading from the Ajmír gate to the Riddell Museum.

XV.—Vernacular copies of these rules have been furnished to the Vakíls of each chief.

101. In regard to results, I can say that no case of epidemic disease occurred in any camp during the time His Royal Highness was at Agra, or during the time the camps were assembled. The day after the Chirkhari camp arrived, three followers in

it died of fever accompanied with pneumonia, the result probably of exposure with insufficient clothing and covering during the march to Agra, the nights being very cold. One man was seriously injured, if not killed, by an elephant on one of the last days of the assembly. The daily sick lists contained reports of trivial sickness or accident only, and for many of the days in question were blank.

102. I should add that the sanitary requirements laid down in the rules above quoted were observed in all the camps, both European and Native. And, if anything, the sanitary aspect at all times of the camps located on the line of the Ajmir gate road was better than that of the Gwalior road camps.

103. AGRA CITY.—Inspected on the 3rd of February. This important city, which covers an extensive site, naturally well drained to the Jumna, has now for some years past been governed by a municipal authority, administering a very considerable income. As yet the only great work of improvement undertaken has been the erection of a municipal market-place now approaching completion. It is well situated near to the Jumna in the midst of the business part of the city. This ganj will provide the accommodation necessitated by the removal of the former Golaganj to make place for the new railway station.

Supplied as Agra now is with railway communication both from the east and west, the city is not unlikely to increase in importance, both as regards trade and population. If that should be the case, it is very necessary that sanitary improvement should be persistently pursued.

As yet nothing has been done to improve the natural drainage channels of the site, or to carefully keep them for the removal of rainfall only. For example, the Dholi Khar nála receives the drainage from the city saucer drains, which passes into the nála through a l igh stone grating situated behind the Jama mosque. Outside the grating a small pool of sewage was seen and a longish track of bad smelling mud.

The conservancy of the city should be perfected. For example, sweepings and latrine impurities should not be stored at the head of a nála for ultimate removal on bullocks when decayed, as seen at Moti Katra muhalla near to a public latrine there.

The public latrines, of which there are 14 masonry and 74 mud-built separate structures, should be more carefully managed and kept in good repair. For example, the latrine in Joshipara muhalla was seen to be much neglected; some mud-built latrines were seen to have the enclosure wall broken down. These places are much frequented at Agra, and should be kept and managed with great care. A place of this kind is very much required at the new municipal market or ganj, for it was noticed that the workpeople and inhabitants were in the habit of using a low patch of land there for this purpose; the result being a place of shameful appearance, such as I seldom see now in the midst of a city.

The conservancy carts were noticed to be very old, much overladen in some instances, and the covering flaps broken. These facts and other circumstances not necessary to mention, suffice to show that the existing method of conservancy at Agra has not attained to the reality and perfection required in a city of such importance.

As a rule, surface cleanliness is admirably effected everywhere, the roadways are well made and properly drained, but some old-fashioned deep drains of defective level remain. Notably, a drain of this kind near to Khuni Burj, which, coming down from the bazar, skirts the important highway near to Sir Dinkur Rao's great house, and passes under the roadway to end in the Jumna at a much frequented bathing place. This drain is really a small open sewer, in the rains no doubt its contents are washed away, but as I saw it, it was a long receptacle of stagnant impurities, making the neighbourhood unpleasant and unwholesome.

No such drain ought to exist in any city of the North-west, indeed, they are becoming uncommon. The impurities which flow to and stagnate in them ought to be carried out of the city every day in properly constructed iron conservancy carts.

In regard to water supply, its general badness is universally acknowledged at Agra. The wells which contain sweet drinking water are few and far between. The city people, as a rule, drink the water of the Jumna, brought to them in brass vessels carried on trucks ; this method of water supply giving employment to a considerable number of persons. The water at any considerable distance from the Jumna stands at from 60 to 70 feet from the surface, and is brackish, excepting in wells in the immediate neighbourhood of a tank which collects rain water.

I believe an irrigation canal is to be constructed which will reach to the neighbourhood of the city. When that is done, I think it not unlikely the Agra well water may be generally improved, but it never will be a fit water supply for a large city.

I think the question of an improved water supply merits the earnest attention of the municipal authorities here.

104. FATEHABAD, a town of 5,000 inhabitants in the Agra District, and the head-quarters of a tahsíli.

Inspected on the 9th of February. Fatehabad is a town of little importance, and I print the present report of it principally to record the good work done there by the tahsíldar, Maulvi Abdúl Háfiz, who, by attention to the business of conservancy, has brought this town, formerly known to me as a much neglected place, into a very creditable condition of order and cleanliness. This town is named from, and its neighbourhood famous in Mahomedan history by the victory gained here by the Emperor Álamgír over Dárá Shiko. The victory is commemorated by a great stone walled garden of 29 acres, all planted with aged, solemn looking, *khinni* trees, the like of which cannot be seen anywhere else in the province, and a large stone-lined tank, the stones of which have been dug away, so that little remains. Outside the garden wall is another record of those days in a square earthen platform, the *Ganj Shahíd*, beneath which the slain lie buried, and where now Hindus lay their offerings ; all this is in the fields well outside the town. In the town itself Álamgír built a great sarai and fine mosque for the accommodation of travellers. The tahsíli is situated in the sarai, and its enclosure is otherwise encumbered with huts of chaprasis and clerks. All the fine masonry wall and travellers' rooms going fast to ruin from neglect. The handsome old mosque is outside the fine sarai gate, and opposite to the mosque is the munsiffi. The open space behind the munsiffi very much requires improvement. If levelled and planted with trees, it would form a pleasant centre to the town, and its cleanliness would then be better attended to. In all the town site this portion only, near the centre of the town, was noticed to have a bad sanitary aspect. Everywhere else cleanliness seemed to reign, the bazar roadway is being made with kunkar ; the smaller ways are kept in good repair. The slaughter place is well situated outside the town, and, but for a great heap of bones in a hole near, seemed to be carefully kept: its enclosure wall in good repair. There are several small excavations around the town, but no great water hole. The excavations were seen to be well kept, their banks clean. The custom of retiring to a distance from the habitations is well established here and insisted on by the local authority.

105. PINAHAT.—Inspected on the 11th of February. A former report on this town may be found at page 65 of my report for 1869. No house-tax or income of any kind is available for improvements here. The mainway, however, is finely made and well kept. The new thána looks well on its raised site. Cleanliness was seen to be neglected in some places, and especially, in the somewhat retired corner inside the old gateway at the town entrance, a very considerable amount of impurities, forming a manure heap, was noticed. This gateway has been abandoned, the mainway passing

into the town to one side of it ; hence this retired corner of bad sanitary aspect. For the rest, the town is not ill kept for a place where no special effort for improvement is made. Its situation amidst ravines, deep with nearly perpendicular sides, helps to this result. Sweepings are cast down, and rainfall flows away into the ravines, and the town surfaces proper are left in fairly good state.

106. BAH.—Inspected on the 12th February. A town in the southern part of the Agra District, and commonly known as Báh-Jarrár. Báh and Jarrár are separate towns about a mile apart, and Jarrár is larger and more important than Báh. Taken together, they form an important centre of population of perhaps 10,000 persons. All of improvement which has been effected here, centres in Báh, and consists principally of the making of the public ways with kunkar, admirably laid down with arched surface, draining at the sides. This adds considerably to the good sanitary aspect of the two principal ways, which cross each other to form a chauk about the centre of the town. The shops on these ways are good looking, and all this centre part is well kept. In less public ways and places the same neglect of conservancy was noticed as reported of this town at page 68 of my report for 1869.

The ganj or market place, in the southern outskirt of the town was seen to be much neglected, its south-west corner broken into holes containing impurities. It is a good sized ganj lined by good masonry shops, the enclosure shaded by good trees, but the surface generally is ill kept. Many fine brick-built houses of Bundelkhand pattern give an air of importance to this small town, and its perfect conservancy is much required. In the south-west corner of the town is a deep tank-like hole, hidden by a garden wall. The surface sweepings of the town are thrown down there, and the sweepers empty the contents of the town cesspools into the excavation. The banks are frequented as a public latrine place, and the total aspect of the place was not short of abominable. Around the town are the remains of a mud wall. Town sweepings, solid and fluid, are thrown on to and over the wall and left there to decay. It is a town of many cesspools, and in some muhallas are deep open drains which are filthy and dangerous. A resident complained that his child had fallen into one of these drains three times, to the risk of its life. As a rule level surfaces in the town site were seen to be well kept, but drains and cesspools were in a bad state, as though seldom cleansed.

JARRÁR.—This town, which contains about 1,000 houses, is a very old centre of population, the habitations almost all mud-built stand in greatest part around three sides of an old tank or excavation, of great extent, called "Hilokin." The fourth side is open, planted with trees and used as a bullock mart ; the most frequented bullock market of this part of the country. Three ghâts, old and broken, edge Hilokin at different places : and are utilized as bathing plaes, for the rest, this great pond has broken edges and a generally unwholesome appearance. The water it contains is useful principally as drinking water for the market bullocks. A water hole of such extent is a rare thing in the Báh country, and its existence probably determines the situation of the market. Around the northern and eastern borders of Hilokin the site is called ganj, which takes the shape of an angular open space of little extent from which the narrowest of lanes diverge. Market is held here twice a week. It happened to be market day at the time of my inspections, and, for din of business and crowds of people, I have never seen anything to equal this ganj on market day. The houses and shops are mean and low ; there is no made surface anywhere, but buyers and sellers thronged the ganj everywhere to overflowing. Jarrár is essentially a town of Hindús, and chiefly the property of one resident landlord, who, if he has not known how to improve the sanitary aspect of his town, has certainly known how to make his bullock mart and ganj attractive to his fellow countrymen, and remunerative. This gentleman accompanied me at my inspection, and politely showed me all parts of the town. He appeared to be the master and only resident authority.

The town has no good way of entrance, no made way anywhere. Its one straight way is exceedingly narrow, the shops poor, but by no means devoid of business

aspect. Indeed the character of the place is that of a site much overcrowded with houses. The surface drains everywhere to Hilokin. Sweepings are stored as manure near to and amidst the houses. Eventually it finds its way to the fields, which are very fertile and hem the town closely on all sides. I think the creation of a fair high way between Báh and Jarrár would soon result in bringing about an improvement in the sanitary condition of the latter, for with lessened isolation, at least the more noticeable sanitary necessities would soon be recognized. It might be possible, so soon as the manure heaps are banished to the outskirts, to widen the main way, to improve the precincts of Hilokin, and to make the much frequented ganj more commodious. But all this can only be done with the consent and countenance of the resident landlord.

107. ETÁWAH.—Inspected on the 14th of February. I mention this, in many respects pattern town, here, only to call attention to the necessity of providing a screening wall to the public slaughter place, where many cattle are slaughtered daily, and which is a well managed place, but some of the butchers can be seen at work from the adjoining high way. Also the public latrines in the outskirts, nine in number, although well kept otherwise, have their roofs broken in some instances. Although not much frequented, they are essential to the comfort of many women and weak persons. The ravines of the neighbourhood are the popular latrine places, and so long as the people walk far enough away from the habited site for this purpose, this custom should not be interfered with. Favourably placed and well scattered, white ants and other insects speedily remove or cover up these impurities.

108. AURAIYA, a town of the Etáwah District. Inspected on the 18th of February. A previous report on this place may be found at page 34 of my report for 1869. This town has increased in population and extent since I saw it in 1869, and it is a place of considerable importance. A very considerable trade in cotton, grain, gour, and ghee centering there principally for export by rail. The town is distant many miles from the rail, but is in communication, by means of a kunkar-made highway, with the nearest station. Auraiya is not a municipality. The income available for purposes of improvement is about Rs. 2,400 per annum, raised by means of a house-tax. The amount seems small for a town of so much importance, and with so many good houses. Especially all the western portion of the town consists of fine masonry houses—the private residences of mahájans. The principal public thoroughfares have been made with kunkar, and the southern portion of the town has been opened out by an admirably made entrance way, which soon divides into two branches to pierce the town in different directions. Both branches are well raised, kunkar-made, and properly drained; together they form a very admirable improvement. The high road, leading to the railway station, skirts the town closely at its eastern border. The handsome tahsíli is on the eastern border of this road, and a fine entrance way, short but wide, leads from the tahsíli to Hume ganj, the principal place of business. Along this short road, shops were to have been built in regular line. A few have been built, but the greater portion of the roadway is lined by cultivated fields, fresh and very wholesome looking. Indeed, this portion of the town, for sanitary appearance, can be much commended. Hume-ganj, a square of heavy masonry shops telling of prosperity, was seen to be well kept, the people there full of business, the store-rooms behind the shops crowded with produce.

A defect in the drainage has resulted in the cutting to pieces of the kunkar roadway beneath the entrance gate, which should be remedied.

In all this tahsíli and Hume ganj portion of the town, the only feature of bad sanitary aspect is a deep water-hole to the north side of the new entrance way. It is admirably placed, and naturally well shaped for the construction of a masonry tank. If any rich man of Auraiya could persuade himself to effect such improvement there, I think he would confer a lasting benefit on his fellow-townsmen.

Absolute cleanliness reigned everywhere in the public portions of this town, and its conservancy must be effected with a reality and persistence very creditable to the

local authorities. Several of the smaller ways were seen to be durably made, and the general appearance of these lanes and ways was seen to be much improved, by comparison with their condition in 1869.

The sarai has been improved, and was seen to be carefully kept.

Many fine old trees exist in different portions of the town, which add much to the generally good sanitary aspect.

A more perfect and certain surface drainage is the sanitary improvement most required. The town site is nearly level, nowhere raised, rainfall flows to the north and to the south. To the north it collects in much broken low ground, and in an old brickwork tank which exists there, but the water stands almost as much outside as inside the brick walls of the tank, the surrounding surface not having been levelled, or, if ever levelled, allowed to break again by rainfall drainage. The result of the existence of this low-lying northern border is, that a vast collection of rainwater accumulates there during the rains, and as the water rises, the unmade lanes of the town become saturated with moisture for days together. This is a very unwholesome state of things.

The Sengar nadi flows at a distance of three miles from the town northwards. If this low track could be effectually drained to the nadi, much good might result.

To the south and east the rainfall collects in water-holes and especially in a great rugged digging, which skirts the high road leading to the railway station. Ravines of the Jumna river come pretty near to the town site on the south side, and I think it might be easily possible to effect a perfect drainage in that direction.

109. JALAUN.—Inspected on the 21st of February. A previous report on this town may be found at page 21 of my report for 1871. At this last inspection one notable improvement, the result of recent effort, was seen. The great fort mound, which was surrounded by a vast ditch, has in part been dug down and two-thirds of the length of the ditch filled up. This great mound and ditch formed part of the town site proper, and the result of this very sensible endeavour at improvement is the formation of a commodious level surface which is utilized as a market place: a new roadway runs through it and trees have been planted on each side of the road.

The remaining third of the ditch however remains as a vast chasm, the sides broken by flowing rainfall, and of generally insanitary appearance. I think sufficient earth to fill it all remains towering above in the mound. I hope the wise purpose which dictated the filling up of two-thirds of the ditch will continue in action, and that as funds are available, the remaining open third may be recovered into the condition of a respectable level plain too. Land thus recovered, properly drained and planted with trees, would provide for the townspeople a permanent improvement of the best kind.

The tahsíli, still located in the old Mahwata palace, with fine baradari, was noticed to have its court-yard ill kept, whereas the adjoining thána court-yard was well swept and in good order. I invariably notice that when the tahsíli presents a neglected appearance, the town to which it belongs is ill cared for in regard to conservancy. Within the town are many ruined houses, or broken sites of former houses, within which sweepings are allowed to accumulate and other impurities of more dangerous character. Everywhere surfaces are ill kept, even the surface of the principal bazar way, though recently somewhat raised and shaped, was seen to be broken into shallow holes at places. As a rule the surfaces of the public ways and lanes are depressed and uneven, and there is no durably made roadway anywhere.

The town site is girt round by a raised roadway called chakkar, said to have been made to keep outflowing rainfall from the town site, which is very low. So low that but for the existence of one vast excavation called Muni Manehar Tank, about the centre, and some 15 or 16 smaller excavations in other portions of the site enclosed

by the chakkar, it would not be possible to save the house foundations from injury in the rains. Muni Manohar, said to have been dug to provide earth for the fort mound, is about 300 yards long by 200 yards wide, and is for the most part a vast excavation, unshaped, containing a wide sheet of water. A new ghât or bathing place of steps is now being made at one portion of its bank, in connection with the Muni Manohar temple which stands there. This ghât may be considered a sanitary improvement of some importance. But at Jalaun no sanitary improvement is so much required as the raising of the thoroughfares, great and small, and their regular repair. If the best earth available for this purpose is used, the raising will become permanent. Eventually the house foundations will be raised too, and the town generally will rise above the general state of mud and moisture which characterises it in the rains now. In truth, it is a poor looking town of little importance, infested with monkies, which break the roofs and scatter the tiles. So that with broken surfaces below and broken roofs above, the general aspect is miserable and depressing. Yet cleanliness should be maintained.

110. KÚNCH.—Inspected on the 24th of February. A former report on this town may be found at page 26 of my report for 1871. At this last inspection a very considerable amount of improvement was seen to have been effected here during the past four years.

The precincts of the famous Gobind Rao's Tank have been further improved by the erection of a new school-house built in red brick, and admirably placed near the margin of the tank, well outside the inhabited town site. The tank itself merits improvement. In the rains it fills to the brim, so that every step forming its even sides is covered by water. But after the rain ceases the water sinks rapidly, a step a day being uncovered, it was said, until soon only a wide pool of water remains, covering the central portion of the bottom of the tank. I think as the result of experience, that if the bottom of the tank could be made with nine inches in thickness of well rammed kunkar, a remedy would be provided for this tendency to leakage. Certainly, if, by any reasonable expenditure, this tank could be made to hold the water it receives, a great boon would have been conferred on the townspeople, for it is the only public bathing place available.

The dispensary has been much improved; the low ground, which neighboured it, having been raised, planted with trees, and cultivated as a garden. The change of sanitary aspect is most commendable. Accommodation for in-patients has been provided, and an ornamental entrance way provided from the tank side.

The town itself, in some portions very picturesque, with good old buildings and shops, has been improved by the making of its principal ways with kunkar. Mának Chauk, an open square of 50 yards, with four gateways, the enclosure planted with trees, the margins girt by handsome houses, was seen to be much improved by the making or repair of its four central ways. It appeared as an admirably kept place of business in all respects.

The conservancy of the town was seen to be well effected now; where formerly, from neglect, impurities had collected, so as to make approach unpleasant to the more retired portions of the town site, nothing of that kind remained. A general and very commendable condition of cleanliness prevailed. This most important change was said to be due to the exertions of Mr. Tapsell, the resident patrol of the Customs Department, who, as a member of the Municipal Committee, has undertaken to control the conservancy establishment, and direct its labours. I saw Mr. Tapsell in the town thus engaged at the time of my inspection, and I believe the improved sanitary aspect of the place is due in great measure to his supervision.

During my visit to Kúnch, I heard much complaint of the defective drainage of the town site and its surrounding land. The general condition of moisture and mud which prevails during the season of rains, was spoken of as a great trouble. It must

certainly be very prejudicial to the public health. I think nothing that could be done would conduce more to the comfort of the townspeople, and to their relief from the prevalent autumn feverishness, than the adoption of measures calculated to remedy this state of prolonged moisture. The making of the public ways, which has been very general, is a step in the right direction, but a careful survey of the town site can alone determine the direction in which surplus rainfall should be made to run off. That being determined, all existing hindrances or obstructions to the outflow of the water in that direction should be remedied or removed. This is a work of first importance, which well merits the attention of the District Civil Engineer.

111. ORAI.—Inspected on the 25th of February, and mentioned here only to record its good sanitary condition. The town site proper is carefully kept everywhere. The line of the nála, or principal natural drainage which skirts the town on its western aspect, is the popular retiring place, and I think it might be brought under management with advantage, sweepers being appointed to bury impurities which collect there.

112. KÁLPI.—Inspected on the 28th of February. A previous report on this town may be found at page 26 of my report for 1871.

At this last inspection very little of change or improvement was noticed. The matter of conservancy was seen to be carefully attended to in all the habited sites, which together make up Kálpi. In the old town considerable attention has been given to the clearing and levelling of ruinous house sites. But several ruinous houses exist still there, and Kálpi is undoubtedly a town of lessening business and importance, its most influential merchants having removed to Cawnpore.

Even in Tiernanganj, the last-built place of business, this backward tendency was very apparent, the houses and shops near to the gateways on all four sides, going fast to decay, or being tenantless ruins. In all other respects this fine ganj was seen to be well kept, its sanitary aspect good, but apparently it is too large for the existing business requirements at Kálpi. The wide-spread site of Kálpi is admirably drained by ravines which run down to the Jumna. In the old town I noticed that sweepings were thrown into the ravines, which are not deep there. Good sanitation would require the carrying of all sweepings well outside the habited site, and the keeping of all ravines as carefully as the more frequented portions of the site, at least everywhere near to the habitations.

A fine new school-house has been recently built near to Tiernanganj. Its surrounding enclosure was seen to be well planted and laid out as a garden. The mud-built hut accommodation behind the school-house for boarders seemed to be ill kept, and generally unwholesome. It contrasted greatly with the admirable appearance and management of the school-house itself.

113. KURÁRA.—Inspected on the 3rd of March. I have inspected this town on a previous occasion, but no printed report has appeared concerning it. It is situated in the north-west corner of the Hamírpur District, and is a town of some importance. The principal portion of the town site is high and is called *unchai*. The houses here stand on a hillock, and the sanitary aspect of this part of the town is good, although the conservancy of more retired places and corners is neglected.

In the southern outskirt, which is low, is a tank or water-hole of very unwholesome appearance, the ground about it much broken into holes, many pigs roaming there. Sweepings and other impurities are thrown down on to the banks of this tank, and the water it contained was filthy and much discoloured, yet the dhobis of the place wash clothes in it. The market place in the eastern outskirt consists of a good-sized square, lined by good shops; a temple, well, and school-house standing in the midst. The space is ample, and the general appearance good, but the site is very low, certainly lower than any of the surrounding land. From this it happens that in the rains, some-

times for two or three days together, the surface of the market place is flooded. Last year a cutting was made with a view to drain the site towards a large tank which neighbours the market place in a north-easterly direction. But the site of the tank is higher than the site of the market place, and the land between them rises. So that the cutting will not carry the water away; on the contrary, if the tank overflowed, the cutting would carry water into the market place.

A very wide nála, a branch of the Rohain river, runs round the west and north sides of the town. This large drainage channel passes at a distance of about 150 yards from the market place on its northern aspect, and I think the latter might be perfectly drained to the nála. Between the market place and the nála at one place is a deep excavation of no great extent; sweepings and impurities are thrown into it, and its surrounding surface was seen to be very filthy—a neglected unwholesome place extending quite near to the market place, and which ought not to exist in any town. The tendency of surplus rainfall is to flow through the lower, or market place portion of the site, from south to north to reach the nála. To obviate this, the principal southern entrance-way has been embanked, and an important cutting made along the eastern border of the town to carry the rainfall in the direction of the Rohain river. Following the line of this important drainage channel, I noticed that the floor of the culvert, which carries the Hamírpur highway, is too high, hindering the outflow in considerable measure, and the cutting, instead of being carried quite to the river's bank, ends in an important roadway leading down to the ghát over the river.

Also I noticed that this cutting is frequented as a general latrine place. I do not think ill of it for that purpose, as it is well outside the habited portion of the town site, and its margins being planted with trees, it affords a great amount of privacy. But I think it would conduce to wholesomeness and decency, if one or two sweepers were placed in charge of the cutting to ensure its cleanliness, burying impurities, as found, daily.

CHAPTER V.

SANITARY IMPROVEMENTS OF THE YEAR.

114. During the year 1875, the most important sanitary improvement to be described was the continuation and further extension of the drainage works, which are being effected for the improved sanitary aspect of the canal-irrigated country of the Doab. This most important work was pushed forward with great vigour during the year.

115. As a proof of the reality and considerable extent of these works, I give below a statement of the actual amount of excavation effected up to the latest date for which returns are available :—

List of drainage works effected or in course of completion.

In connection with the Ganges Canal.			*In connection with the Eastern Jumna Canal.*		
District.	Name of work.	Cubic feet of excavation actually effected.	District.	Name of work.	Cubic feet of excavation actually effected.
Saháranpur.	Sita Nadi	2,264,600	Saháranpur.	Dhalapra Drain	636,550
	Bhudiwala	63,371		Kátha Nadi	1,484,999
	Landhaura Swamps ...	206,317		Thola Cut	1,026,774
Muzaffarnagar.	Jáusath Drainage ...	2,228,002		Anatmau Cut	204,658
	Chandsamund Cut ...	59,000		Kirsani Nadi Cut... ...	293,423
	Bhainsi Cut	220,564		Old Canal Cut	101,271
Meerut.	Sheikhpura Cut	666,666		Nánauta Drain	77,589
	Karauli Cut	171,429		Talpara Drain	54,913
Bulandshahr and Meerut.	Hawál Cut	1,412,000	Muzaffarnagar.	Shámli Drain	266,600
	Baral Cut	1,854,000		Mainkhera Drain... ...	32,792
	Khúrja Drainage	5,800,000		Kándhla Drain	491,000
	Hasanpur Cut	877,000	Meerut.	Kirthal Drain	1,325,000
	East Káli Nadi	2,490,000		Kándhla Drain	411,000
Aligarh.	Sikandra Rao Drainage ...	6,203,049		Ramála Drain	87,000
	Allgarh Drainage ...	4,214,835		Makandpur Drain ...	17,000
	Jalesar Drainage ...	852,976		Suff Drain	380,000
Etáwah.	Kasamnagar Drainage ...	212,712		Baraut Drain	819,000
	Kamora Drainage ...	1,093,912		Alawálpur Drain	635,000
	Total ...	30,890,433		Total ...	8,243,869

116. Perhaps the most important work in the above long list, both in regard to its urgent necessity and its satisfactory results, so far as can be judged at present, is the Khúrja drainage scheme. This work has been almost entirely effected during the past year: it was in active operation during the last rainy season. It may be described as consisting of one main channel in communication with the Kirwan nadi, cuttings branching from all the principal jhíls of the Khúrja country to reach the cut-

ting. Dr. Willcocks, the health officer of the Bulandshahr district, states, in an official communication to my office, that this drainage scheme completely drained a country which formerly was remarkable for swamp and stagnant moisture in and after the rainy season. And to this perfected drainage Dr. Willcocks attributes the improvement in the death ratio at Khúrja, which reached to the unprecedented figure of 107·0 per 1,000 of population in 1874, but fell to 29·6 per 1,000 in 1875.

I should add that in 1873 the ratio was 59·8. I cannot give the ratio for previous years, as 1873 was the first year in which deaths in municipal towns were separately registered; but I have reason to believe that the death ratio has been high in Khúrja for some years past. The comparatively low ratio of 1875, the first year of improved drainage, is a very satisfactory circumstance, and I think this result is due in greatest measure to the removal of excessive moisture from the town precincts and from the country surrounding the town.

In connection with this so far successful scheme is the question of the improvement of the Kirwan *nadi in its* entire length, so that the excessive moisture, from which the Khúrja country has been relieved, may not injuriously affect the people of the mortuary circles through which that nadi passes on its way to the Jumna river. I trust the drainage officers will persevere with this scheme until the Kirwan nadi is perfected as a drainage channel from end to end.

117. In the list of works effected or proceeding, no mention is made of the Sengar nadi. At page 51 of my report for 1874, para. 61, it is mentioned that the Sengar nadi will be examined by the officers of the Irrigation Department with a view to enlarging its carrying power.

I trust this very necessary work will not be lost sight of. The ratio of deaths in Jaswantnagar town in 1874 was 99·5 per 1,000, in 1875 it was 68·7. I think this record of great mortality is due in greatest measure to the existing unwholesome condition of the Sengar nadi on which Jaswantnagar stands. Until the nadi is improved, its khádir bed reclaimed to its former condition of dryness during many months of the year, I do not think the public health at Jaswantnagar and neighbouring centres of population which border the nadi, can be expected to improve.

In connection with this question of drainage schemes, I should mention two which are not included in the list already given, as they are not immediately connected with canal-irrigation, or undertaken by the officers of the Irrigation Department:—the drainage of Saháranpur city and its precincts, and the drainage of the Meerut site.

The former, described at page 37 of my report for 1874, continues its good office of removing excessive moisture, which formerly stagnated in and about Saháranpur, and I believe with favourable results on the health of the inhabitants—results not so marked in 1875 as in 1874, but still well characterised by the fact that Saharánpur, formerly noted for its high ratio of mortality, has during the past two years taken rank amongst the towns of lowest ratio of mortality in the Doab. The Meerut scheme is now in course of active prosecution. As yet nothing of results could be expected. As the work is perfected, a great amount of water will be carried away from the site, and I think it reasonable to expect that the ratios of mortality of 49·0 in 1874 and 43·6 in 1875 will be sensibly decreased in coming years.

But it must not be forgotten that the water removed from the Meerut site will be poured into the East Káli nadi to the increase of moisture in its wide khádir land; and unless this is provided for, other centres of population, lower down the nadi, will suffer. For example, Bulandshahr, where the ratio of mortality was 84·9 in 1874 and 54·0 in 1875.

The unwholesome condition of the East Káli nadi at Bulandshahr is described at pages 14 and 33 of my report for 1874, and I think the greatest care should be taken to prevent any permanent increase of moisture there.

118. At Meerut, in addition to the commencement of the important drainage scheme, a notable sanitary improvement was effected during the past year. The improvement is thus described by the Magistrate, Mr. Webster:—"On the main road between the kutcherry and the city were four shallow, stagnant, and noxious ponds, which gave out in hot weather most unpleasant and unwholesome exhalations. Three of these ponds I have filled up, purchasing the land on their margins for this purpose at a total cost of Rs. 2,589. Thus a great sanitary improvement has been effected, and in effect at no cost at all, as I can now sell the land reclaimed at a considerable advance on the sum expended. But I do not wish to bring on the sale yet, as, after the completion of the drainage scheme, these lands will be much more valuable than they are now. The fourth pond I have drained, deepened, and squared into a well-shaped tank, which now holds a constant supply of good water. This was effected at a cost of Rs. 1,298, and is a very great improvement to the neighbourhood, as, instead of a pestilent, evil-smelling, and disgusting-looking swamp, there is now a square pond of clear water."

119. As a sanitary officer, I need scarcely add that the work effected, as described by Mr. Webster, is a sanitary improvement which cannot be too much commended. I quote that gentleman's words concerning this improvement, because of the valuable testimony they render in favour of my own belief, more than once recorded, that unwholesome excavations in, or near to, centres of population, may be, in many instances, reclaimed without cost, and sometimes at profit. I think in almost every town in the province sensible work of this kind might be done to the incalculable advantage of the people now living and of the coming generation.

During the past year it is certain that fever disease prevailed to a much less extent at Meerut than in 1874. In proof of this I may quote a few reliable figures. In 1874 the admissions to hospital for fever amongst the European troops at Meerut were to strength 1,463·4 per 1,000; amongst native troops, 1,654·9; amongst the patients of the civil, 284·0; amongst prisoners of central jail, 1,054·9.

In 1875, the ratio of admissions for fever were—European troops, 823·9; native troops, 360 6; patients of civil hospital, 181·5; prisoners of central jail, 386·6.

Although it cannot be supposed that this marked improvement has resulted from the filling up of these ponds, yet I believe some amount of this lessened tendency to fever disease may be due to this cause, and think I am justified in pointing to this coincidence of lessened stagnant moisture and decreased fever tendency as a result encouraging to other improvers in the same direction.

It may be true, as argued by Dr. Moir, in the memorandum attached to this report, that the greatly lessened fever tendency of 1875 has been due to the fact that a recently prevailing fever epidemic is declining to the normal endemic state. And if that is so, I think our best safeguards against a return to the epidemic prevalence in future years are the completion of the drainage scheme now progressing, and the extended prosecution of improvements of the kind so forcibly described by Mr. Webster.

120. Amongst works for the improvement of drainage effected during the past year, I should mention a cutting called the "Sarwat drainage cut," which has been made to the north of Muzaffarnagar town to remedy a tendency to flooding of the town from that direction. The result is said to have been satisfactory. During the past few years a very considerable improvement has been effected in the drainage of the Muzaffarnagar site in several directions; and as a fact this improvement has been coincident with a rapidly declining death-rate, until, for 1875, the recorded ratio of deaths to population in that town fell to 27·6 per 1,000, the most favourable ratio of any municipal town in the Upper Doab for that year.

121. During the past year a very considerable sum was expended for the improvement of the drainage of the site of Jalaun town. As described in the report of this town a few pages back, the site is low and much requires a more perfect drainage. The cutting, which has been made during the past year for this purpose, has not produced very satisfactory results, as it was found, during the past rains, that the excess of rainfall has not yet a free outlet from the site. An endeavour is being made to rectify this, and it is hoped that the series of levels now being taken may result in showing how the necessary outlet may be thoroughly effected.

122. In the Tarái a considerable amount of good work has been effected in the way of drainage works, for the purpose of doing away with swamps and marshes in the neighbourhood of centres of population; and especially in the town of Káshipur, a very important sanitary work has been done in filling up unsightly and unwholesome excavations which existed in the eastern outskirt of that town. During the past year I inspected Káshipur, and indeed many other towns not mentioned in this report, for the sake of brevity. I noticed that this work of reclamation had been very thoroughly effected, the drainage of the recovered land provided for, surfaces levelled; and this good work is being continued to effect further improvements in the same direction. The result, I believe, will be most satisfactory, and will confer considerable benefit upon the inhabitants of Káshipur in providing a considerably improved local climate there.

123. At Sambhal, in the Moradabad district, a very important sanitary improvement has been in process of completion. For many years past a very large amount of water stagnated in the immediate neighbourhood of this town, in and after the rains. With a view to effect the removal of this excess of moisture, a cutting, seven miles in length, reaching from Sambhal to the river Sote, has been planned, and in great part effected. It is not yet known whether this cutting will entirely remedy the flooding complained of, but that it will be beneficial to that end cannot be doubted.

124. At Cawnpore during the past year the drainage of the city site was further improved by the construction of new surface drains of proper level.

125. In the towns of Hamírpur, Kurara, Ráth, and Jaitpur, in the Hamírpur district, considerable, and in some instances important, improvements have been effected in the drainage of the town site.

126. In the city of Gorakhpur a very important work is in process of completion. This consists of the better fashioning, cleansing and general improvement of the great excavations which neighbour the jail and stand well in the midst of the city site. These excavations are described at page 41 of my report for 1870. I hope next year to be able to inspect this sanitary work and describe its reality. At present I can say that I think it will prove a successful undertaking, likely to benefit the inhabitants and reflect credit on the promoters. During the year 1875 a sum of Rs. 6,516 was expended on this work.

127. In Benares city two works of improvement, having for object principally the better ventilation and improved conservancy of the city, have been completed. They consist of two new roadways, each 40 feet wide, provided with stone-made surface drains and raised foot-paths for pedestrians. They are fairly straight in course, and houses of the meaner sort have been purchased and removed in a few places to provide the necessary space, and together they constitute a sanitary improvement of the first importance. One runs from Machaudri, an open space in the midst of the city, to Rájghát on the Ganges, a distance of rather more then 1,000 yards, the other from Machaudri to Maidagin, the last also an open space in the midst of the city, a distance of 900 yards. These new roadways help to continue and perpetuate the really handsome and wholesome-looking public thoroughfares, for which

Benares, of all cities in the North-West, is becoming famous: the cost of these two roadways was Rs. 28,511.

128. The previously mentioned are the important sanitary improvements worthy of separate mention. As thus summarily reported, their real importance appears but feebly. I think it would be possible to write a separate chapter of considerable length to describe the drainage schemes of the dry list given above—their importance and extent and the sanitary advantage they are likely to confer on many centres of population influenced, as, for instance, upon the great town of Aligarh. As part only of the Aligarh drainage scheme, a cutting was made from Aligarh to the Jumna river by Háthras, with the result, as described in the word of the Civil Surgeon long resident at Aligarh, of "completely preventing the annual flood which has inundated the lower portions of the city site for years past, and which was invariably followed by increased sickness." It is likely, I think certain, that the existence of that cutting, if permanently effective, will be the means of saving thousands of persons from distressing sickness and misery. The ratio of mortality, which stood as high as 35·6 per 1,000 in 1875, may fall to the favourable ratio observed at Muzaffarnagar since its site was better drained.

But the space at command will not permit me to enter further on the subject It may suffice if I say that these important drainage schemes are being carried out with great perseverance in several directions, and together constitute a sanitary work, the probable advantages of which cannot easily be over-estimated.

129. Besides these more important sanitary improvements, I have to report the steady continuance of minor improvements in almost all the centres of population governed by municipalities, and in many of the towns administered under Act XX. of 1856.

In my reports upon the towns inspected during the past year I have described some of these improvements.

They consist almost invariably of the results of well directed efforts to improve the local drainage, to raise and consolidate the public thoroughfares, and to fill up unwholesome excavations. In some towns a considerable amount of sanitary improvement has been effected, or is being effected, in the direction of a better ventilation by means of straightening existing roadways, or opening out new ways in more crowded portions of the site.

So general and so well established has this business of improvement become in the important and better known centres of population, that I think, as one of the results of my inspections of the past two or three years, better results would ensue if I gave my entire attention for a time to the inspection of the smaller towns of the province, say, such as have a population of from three to five thousand inhabitants.

130. In obedience to orders received, I have, during the two past years especially, given greatest attention to the sanitary condition of towns where from local resources the means of improvement are readily forthcoming. I do not hesitate to say that improvement has made and is making good way in the towns in question from one end to the other of the country. The English officers who know these towns so well and visit them so often, and the superior class of native officials, are, as one result of perfect education and extended reading, very far advanced in knowledge of sanitary matters and convinced of the advantage of sanitary improvements; and I think there is no fear at all that the important towns of the province will ever be allowed to return to their former state of neglect and unwholesomeness. But the condition of the centres of population which rank, in regard to importance, between the villages and the well known towns, and which are numerous and often of much importance in native esteem, is still far from satisfactory; many of them are well known to me by actual inspection, and very commonly I see in them some glaring departure from the requirements of ood

sanitation, or the existence of some insanitary evil well known to the inhabitants, and the removal or remedy of which they would welcome.

I believe any surplus funds at the disposal of district committees could not be better or more justly expended than for the sanitary improvement of second class towns which have no local resources to fall back upon for this important purpose. By sanitary improvement here, I do not mean any undue interference with long established public latrine places or manure heaps, but the effecting of such improvements of general importance and advantage to the inhabitants, as the levelling and drainage of a market-place, the levelling and drainage of any swampy corner or place of the habited site, or near to it, the raising of the principal thoroughfare, the filling up of any very unwholesome excavation existing amidst the houses.

C. PLANCK,

Sanitary Commissioner, N.-W. P.

APPENDIX.

REPORT ON FEVER IN MEERUT DISTRICT.

The following memorandum is printed in this report in continuation of the memorandum of last year on the same subject. Inasmuch as the results arrived at in this memorandum are founded upon the ratios of mortality recorded during the year, I doubt their exactness. Yet I believe there has been a lessened fever mortality in the Meerut district during 1875, *as compared with* 1874, *and the ratios of mortality from fever of* 22·6 *for* 1874, *and* 21·0 *for* 1875, *witness in this direction, though not in any very marked degree. The really marked improvement in the health of the troops, prisoners, and perhaps the civil population of Meerut city and neighbourhood, during* 1875, *is most satisfactory, as showing an undoubted decrease or cessation of the cause of fever there, whatever it may be.*

"I think it matters little as to what opinions are held by different observers, concerning the reason for the excessive fever mortality of the Meerut district; whether from fever epidemic prevalence, or from increase of moisture in the land, so long as all are agreed that the panacea for malarious fevers is good drainage. I am bound to say that it has never come to my knowledge that any authority has held the opinion that canal-irrigation has caused the fever. The nearest approach to such opinion recorded has been that increase of moisture in the land has increased the prevalence of fever disease which existed long before canals were made. I believe, as the result of extended observation, that this view is absolutely correct.

The more the causes of malaria abound as a permanent feature of the country, the greater, I think, will be the number of persons who will fall under the influence of fever disease at times of epidemic prevalence.

As the remedy now in course of providence is improved drainage of the district generally, and of the Meerut city site in particular, it is unnecessary to pursue this question further.

C. PLANCK.

MEMORANDUM.

In January, 1875, I wrote a memorandum on the fever which had prevailed in the district of Meerut for some years before, and I would now add a short supplementary statement for the past year.

I shall number the figured statements here given exactly as in the former memo., for the sake of easy reference, distinguishing them only by the letter A.

No. III. A.

2. Statement showing the ratio of deaths from fever per 1,000 of population in mortuary rural circles most irrigated by canals in 1875 :—

Irrigated by Eastern Jumna Canal.			*Irrigated by Ganges Canal.*			*Irrigated by Anúpshahr Branch.*		
Name of circle.	Population.	Ratio per 1,000.	Name of circle.	Population.	Ratio per 1,000.	Name of circle.	Population.	Ratio per 1,000.
Chapraulí ...	47,953	22·19	Daurála ...	39,279	14·38	Baheúma ...	15,306	11·92
Baraut ...	20,920	22·21	Sardhana ...	66,462	14·43	Mawána ...	52,691	13·09
Binauli ...	30,800	17·40	Meerut pargana,	64,205	24·00	Parichatgarh...	45,403	18·13

Irrigated by Eastern Jumna Canal.			*Irrigated by Ganges Canal.*			*Irrigated by Anúpshahr Branch.*		
Name of circle.	Population.	Ratio per 1,000.	Name of circle.	Population.	Ratio per 1,000.	Name of circle.	Population.	Ratio per 1,000.
Bágpat ...	42,565	15 64	Janee ...	74,010	22·60	Garhmukhtesar,	22,745	15·87
Pailáni ...	33,534	16·10	Begamabad ...	41,604	22·55	Buxar ...	23,963	28·25
Khekurah ...	39,979	16·83	Murádnagar ...	43,710	18·01	Pút ...	18,673	18·96
			Pilkhuwa ...	26,478	10·61	Kithor ...	27,552	21·27
			Dhaulána ...	43,587	24 62			
Totals and means ...	265,781	19·02	Totals and means,	399,335	19·57	Totals and means,	206,333	17·79

The general mean of the three irrigated groups for the year 1875 is 18·98 per mille.

On comparing the means in the three groups there was, for the years 1871—1874, a considerable difference in their mortality.

The Ganges Canal gave 28·50 per 1,000 of population, while the Eastern Jumna Canal gave only 16·3, and the Anúpshahr Branch 20·11, as shown in statement No. III. In 1875, this difference of mortality in the different groups has almost disappeared—a satisfactory feature as regards registration.

The fever deaths in the rural circles irrigated by the Eastern Jumna Canal numbered, as is shown here in statement No. III.A., 19·02 per mille last year.

The Ganges Canal group gives 19·57, and the Anúpshahr Branch 17·79, the mortality in the three groups being thus nearly equal, and giving a mean of 18·98, and for the four previous years it was 22·80.

It must be noted, that during 1874 considerable changes were made in the arrangement and classification of the police stations, and consequently the grouping of the villages in the mortuary circles had also to be changed to meet the convenience of the police. The total population embraced in statement No. III. was 878,458, while that in No. III.A. is 871,419, being less by 7,039. Though it is necessary to notice this difference, it is, after all, very trifling among a population numbering almost four-fifths of a million. In the mortuary returns this excluded population has been transferred to the non-irrigated circles.

3. The mean mortality in the non-irrigated, or little irrigated, circles is 21·75 as is shown below.

No. IV. A.

Statement showing the ratio of deaths from fever per 1,000 *of population in mortuary rural circles not, or little, irrigated by canals in* 1875.

Name of circle.	Population.	Ratio per 1,000.
Daha	34,197	19 85
Kamuruddinnagar	7,090	9·87
Loni	21,121	21 78
Shahdara	12,480	21·31
Gházialad	38,979	21·42
Khurkauda	38,900	31·05
Hápur	67,311	20·10
Mowkhás	22,180	17·91
Total and means ...	242,258	21·75

The results of 1875 thus agree with those of the four previous years, giving fewer deaths from fever in the irrigated than in the non-irrigated circles. See paras. 10 and 11 of former memo.

It must be remembered that the mortality has been slightly improved here by the transfer of a population of about 7,000 more healthy persons to this group.

4. The same results are brought out in statement No. V.A., where town mortality is compared, and here it may be noticed that the population of the towns has not been changed by the police arrangements before referred to. The town population remains unchanged in this respect in the two periods under review.

No. V. A.

Statement showing ratio per 1,000 *of deaths from fever and all causes in seven towns at a distance from canal-irrigation, and three towns near it, in the year* 1875 :—

	Name of town.	Population.	Fever.	All causes.
Distant from canal-irrigation.	1. Meerut City	52,866	36·49	42·94
	2. „ Cantonment	28,5.0	21·46	30·26
	3. Hápur	1 .544	27·6	51·.2
	4. Garhmuktesar	7,965	24·48	34·15
	5. Bágpat	7,367	44·37	61·89
	6. Gházia.ad	7,365	31·.1	57·43
	7. Pilkhuwa	6,239	31·09	45 04
	Total and means	124,866	31·18	42·52
In the midst of canal-irrigation.	8. Sardhana	12,469	31·28	39·70
	9. Baraut	8,404	39·86	44·86
	10. Mowána	6,714	14·45	17·28
	Total and means	27,587	29·79	35·81

The deaths in towns under the influence of canal-irrigation are fewer than in those little, or not at all, affected by canals; and though the difference between 31·18 and 29·79 is only 1·39, it is in favour of canal towns, and the difference of the ratio of deaths from all causes is still more marked. They are 42·52 per mille in non-irrigated towns, and only 35·81 in towns surrounded by canal-irrigation. The general health of the people would, therefore, appear not only to be not injured by canal-irrigation, but actually to derive benefit from it. At least one of two things must apparently follow: either the health of the people in canal-irrigated districts is better, or the registration of deaths there is worse than in non-irrigated districts; and I fail to see a reason why there should be greater carelessness in reporting deaths from places constantly visited by the officers of Government, than from places little frequented by them. The expectation would be the other way.

5. In paras. 13 and 31 of last year's memorandum, I expressed the opinion that we had been passing through a periodic epidemic of malarious fever, and that the fever "on reaching its maximum here will return to its usual endemic state." From reading the imperfect history of previous epidemics, I was led to form that opinion, and the results of 1875 have confirmed it in a very great measure. In another year the mean will most probably be reached. As before shown, the deaths in the rural circles, irrigated and non-irrigated, from the fever mortality fell below that of the four previous years.

Thus, in the irrigated circles, with a population of nearly four-fifths of a million, the mean fever deaths for the four years 1871—74 were 22·80 per mille, and in 1875, 18·98. In the non-irrigated circles, containing a population of nearly one-fourth of a million, for the same four years, fever mortality was 23·73, and in 1875, 21·75 per mille.

In the towns distant from irrigation, with a population of 124,866, the difference was very little in favour of 1875; and in the towns near the canals, with a total population of, however, only 27,587, there was more fever in 1875 than the mean of the four previous years; but among such a small population the ratio is easily disturbed by special causes. In the four years, 1871—74, the mean fever deaths in the whole district were 23·84 per mille, and in 1875, 21·02, indicating less prevalence of fever last year. But, as a rule, deaths from malarious fever are a very rough gauge of the extent of the prevalence of the disease, since the number of deaths bears a very small proportion to the number of attacks. A far more sensitive index of its prevalence

is the admissions into hospital of soldiers, civilians, and prisoners, and in statement No. VIII.A. this will now be shown :—

No. VIII. A.

Statement showing the ratio of Admissions from Malarious Diseases and from all other causes, and of the Mortality from all causes among the European and Native Troops, Civil Hospital, Central Prison, and District Jail, at Meerut for the years 1874 and 1875.

Years.	1874.	1875.
European Troops.	Average strength.	1,491	1,398·16
	Fever.	1,463·45	828·94
	Spleen diseases.	6·71	10·73
	Dysentery.	42·92	35·76
	Diarrhœa.	93·23	68·66
	Hepatitis.	55·67	22·17
	Admissions from all causes per 1,000 of mean strength.	2,494·3	17,14·39
	Deaths from all causes per 1,000 of mean strength.	17·44	15·73
Native Troops.	Average strength.	768	887 38
	Fever.	1,664·95	360·61
	Spleen disease.	45·67	22·64
	Dysentery.	68 59	70 99
	Diarrhœa.	29·95	5·63
	Hepatitis.	1·30	...
	Admissions from all causes per 1,000 of mean strength.	2,309·89	794·47
	Deaths from all causes per 1,000 of mean strength.	18·23	15·77
Civil Hospital.	Total admissions.	17,021	14,048
	Fever.	284 06	18·62
	Spleen diseases.	62·61	48·41
	Dysentery.	19·33	97·26
	Diarrhœa.	36·19	48·12
	Hepatitis.	1·70	4·98
	Deaths from all causes per 1,000 of mean strength.	9 99	10·18
Central Prison.	Average strength.	1,222·8	1,220·00
	Fever.	1,064·95	386 69
	Spleen disease.	...	1·64
	Dysentery and diarrhœa.	309·94	82·74
	Hepatitis.	...	...
	Admissions from all causes per 1,000 of mean strength.	1,699·38	607·90
	Deaths from all causes per 1,000 of mean strength.	128·39	54·07
District Jail.	Average strength.	491·6	430·75
	Fever.	1,336·7	633 78
	Spleen diseases.	...	13·83
	Dysentery and diarrhœa.	165·71	188·04
	Hepatitis.	4·04	2·32
	Admissions from all causes per 1,000 of mean strength.	1,862·38	1,183·98
	Deaths from all causes per 1,000 of mean strength.	64·60	48·75

6. Among the European troops it is seen that the fever admissions have fallen from 1,463·45 in 1874, to 823·94 in 1875, per 1,000 of strength; and among the native troops they have fallen from 1,654·95 in 1874, to 360·61 in 1875. In the civil hospital the fever admissions in 1874 were 284·06 per 1,000 of total treated, and in 1875, they have been only 181·52. In the central prison the fever admissions in 1874 were 1,054·95 per 1,000 of strength, and only 386·69 last year. In the district jail the respective numbers were 1,336·7 and 633·78. This is a very remarkable decrease of fever in 1875 as compared with 1874. The decrease was, among European troops, 43·70 per cent.; among native troops as much as 78·21 per cent; in the civil hospital, 36·09 ; in the Central Prison, 63·34 ; and in the District Jail, 52·58 per cent. The admissions from all causes bear an equally favourable diminution.

This great improvement in the health of the troops, and of all classes of the people in the station and throughout the whole district, is what might have been expected to take place from the history of the fever in other districts ; and it was observance of it there that led me to anticipate its gradual disappearance now, quite irrespective of any action taken to ameliorate it. In fact, no such action was taken ; it is true the Meerut station drainage scheme was begun, but it had not proceeded so far as to have any influence on the carrying, off of the water. As a matter of fact, I have never seen the station more flooded than in September last, and yet, on the subsidence of the water, fever did not break out either in the station or in the district.

7. This diminution of fever may be further illustrated by statement No. IX.A., showing the monthly fever admissions among the troops and at the civil hospital.

In examining these figures it is seen that in the early months of the year there were more fever admissions in 1875 than it 1874, and this holds good among the civil population as well as among the troops.

The sickness of 1874 was carried into the beginning of 1875.

No. IX. A.

Statement showing the admissions from malarious fever in each month, and the annual ratio of admissions and deaths from it among the European and Native troops and in the Civil Hospital at Meerut, for the years 1874 *and* 1875.

1873	1874	Years.	
1,398·16	1,491	Average strength for the period of observation.	European Troops.
86	38	January.	*Number of admissions into Hospital in each month.*
88	45	February.	
73	40	March.	
145	63	April.	
122	103	May.	
111	103	June.	
186	189	July.	
108	413	August.	
97	458	September.	
99	356	October.	
72	205	November.	
16	160	December.	
1,162	2,182	Total admissions of the year.	
828·94	1,463·45	Admission-rate per 1,000 of strength.	
...	2	Number of deaths.	
...	1·34	Death-rate per 1,000 of strength.	
887·38	764	Average strength for the period of observation.	Native Troops.
40	37	January.	*Number of admissions into Hospital in each month.*
14	21	February.	
19	15	March.	
31	22	April.	
43	40	May.	
14	62	June.	
2	104	July.	
20	298	August.	
48	306	September.	
50	239	October.	
27	84	November	
12	60	December.	
320	1,878	Total admissions of the year.	
360 61	1,672·77	Admission-rate per 1,000 of strength.	
6	6	Number of deaths.	
6·76	7·85	Death-rate per 1,000 of strength.	
14,048	17,021	Total admissions.	Civil Hospitals.
137	65	January.	*Number of admissions into Hospital in each month.*
69	66	February.	
147	79	March.	
212	124	April.	
257	193	May.	
262	194	June.	
226	410	July.	
265	1,100	August.	
286	1,063	September.	
333	906	October.	
226	414	November.	
130	226	December.	
2,560	4,853	Total admissions of the year.	
181·52	284·06	Admissions per 1,000 of total admissions.	
12	34	Number of deaths.	
·85	1·99	Death-rate per 1,000 of total admissions.	

The improvement during the rainy season, however, is most marked; in September, 1874, there were 458 fever admissions in the European garrison, and in 1875 only 97. In the same months, among the native troops, there were 306 and 48 admissions in the respective years, and at the civil hospitals the numbers were respectively 1,063 and 286, and so on with the other months.

8. All these figures go to show a great decrease of fever throughout the whole of this district, as well as in the cantonments last year, and confirm previous statements that this fever is returning to its normal endemic state.

9. In paras. 18—21 of my last memorandum, I discussed at some length the notion maintained and promulgated by not a few, that the fever which Meerut has been suffering from is due to a rise of the spring-level, and I arrived at the conclusion that though the sub-soil water had been constantly rising since 1869, it was not the cause of the malarious fever.

A statement is appended below showing the monthly means of the elevation of the sub-soil water for the past six years.

It is unnecessary to recapitulate here the views there expressed, but the further experience of 1875, as to this point, is very interesting.

Statement showing distance of level of sub-soil water from surface of ground, and rainfall from 1870 to 1875.

Months.	1870.		1871.		1872.		1873.		1874.		1875.		Rise of water-level since 1870.
	Water-level.	Rainfall.	Water-level.	Rainfall.	Water-level.	Rainfall.	Water-level.	Rainfall.	Water-level.	Rainfall.	Water-level.	Rainfall.	
January	13·037	...	11·966	1·10	10·731	3·30	10·914	·40	10·400	·20	8·780	...	4·257
February	13·162	...	11·942	2·17	10·607	·90	10·992	...	10·321	1·50	8·829	1·60	4·333
March	13·312	1·93	11·957	...	10·601	...	11·208	·90	10·497	1·17	8·960	...	4·352
April	13·496	·85	12·265	1·00	10·966	·40	11·402	...	10·930	...	9·622	...	3·874
May	13·865	·75	12·602	3·78	11·408	·20	12·012	·98	11·368	8·95	10·409	1·50	3·456
June	14·211	12·66	12·576	6·86	11·822	3·07	12·420	·20	11·503	10·957	10·957	·28	3·254
July	12·502	9·48	12·000	9·79	11·458	8·83	12·417	11·92	10·748	12·98	11·377	5·88	1·125
August	11·741	8·16	10·874	6·85	10·764	8·86	11·308	6·25	9·053	7·92	9·985	9·15	1·776
September	11·912	3·95	10·302	1·15	10·498	5·90	10·659	7·89	7·727	4·35	8·360	15·90	2·952
October	11·412	...	10·574	...	10·561	...	10·152	·92	7·841	...	5·906	·15	5·447
November	11·770	...	10·909	...	10·666	...	10·411	...	8·009	...	6·853	...	4·917
December	12·045	...	11·978	1·80	10·673	·58	10·725	·65	8·462	...	7·571	...	4·474
Total ...	151·795	37·67	138·845	33·14	130·861	39·06	134·220	29·41	116·653	37·07	107·698	34·46	44·097
Mean ...	12·649	...	11·570	...	10·905	...	11·185	...	9·718	...	8·975	...	3·674
Maximum ...	23-6-'70 14·346	...	2-6-'71 12·710	...	23-6-'72 12·009	...	30-6-'73 12 609	...	5-6-'74 11·602	...	23-7-'75 11·474	...	...
Minimum ...	21-9-'70 11·075	...	24-9-'71 10 147	...	21-9-'72 10·481	...	2-11-'73 10 040	...	15-9-'74 7·651	...	1-10-'75 5·676	...	...
Range ...	3·271	...	2·563	...	1·528	...	2·569	...	4·011	...	5·798	...	...

There has been a mean daily rise of the spring-level of nearly nine inches; the maximum rise was greater than in any one of the previous five years, the range also was the greatest, yet there has been less rainfall in 1875 than in 1874; and there has been, as before shown, a remarkable decrease of fever with all this elevation of the spring-level—facts of the utmost importance, and very gratifying to me, as tending to show that the opinions I ventured formerly to express were apparently maintained on good grounds.

If a rise of the sub-soil water were an important factor in the causation of fever, it would not be easy to understand the great decrease of fever herein shown with a marked rise of the spring-level.

It would follow that the cause and its effects bore an inverse ratio to each other, for with a higher spring-level, we have had a great decrease of fever. The simple truth would then appear to be, that the fever in this instance does not depend on the sub-soil water level. To arrive at this conclusion on apparently sound principles is a matter of some importance, for a proper appreciation of it would prevent theoretic engineers from recommending Government to incur the enormous expense of the sub-soil draining of this large station, and would lead Government to reject the scheme. I have heard an engineer of high standing maintaining that such sub-soil drainage was the only means of removing our late baneful fever.

10. It was explained in the former memorandum, that though the figures giving the rise and fall of the sub-soil water were relatively correct, yet that the zero of the scale had been originally fixed without the aid of instruments. Since that was written, the distance of the well-water from the surface of the ground has been carefully determined by an engineer, and has been verified by Mr. Howe, Civil Engineer, in charge of drainage works. The figures given in this statement have all been carefully reduced to the new zero, and may be accepted as correct. The mean level of the ground in an adjoining field was chosen in preference to that round the well for purposes of comparison. In examining the figures it is seen that the water stands at the lowest point usually near the end of June, which is the period of the year furthest removed from the rainy season of the previous year. It is also observed that at this period of lowest water level in June and July, the level approaches most closely to the point at which it stood in these months in 1870. Thus the level in July, 1871, exceeded that of 1870 by only half a foot, that of July, 1872, was not quite a foot higher; July, 1873, was about one-third of a foot higher; July, 1874, was $1\frac{7}{10}$ of a foot, and July, 1875, only $1\frac{1}{10}$ of a foot higher than the level in the same month 1870. The water then falls almost to one common level in the dry weather; yet, while this is the case, there has been a gradual increase of of the mean level of successive years, beginning with 1870. In that year the mean was 12·649 feet, in the next it was 11·570, and in the four following years it was 10·905, 11·185, 9·712, and 8·975 feet; and the mean daily height of the spring-level in 1875 was 3·674 feet higher than the daily mean in 1870. These facts are very remarkable, and their explanation, which is not easy, forms a problem for the engineers. I have at different times asked several of these officers what in their opinion is the cause of this persistent elevation of the spring-level, but have received no definite answer. There seems to be a vague idea that it is due to the extensive irrigation carried on in this district, and in those north of it; but while this may be the case, it has to be observed that in May, June, and July, when the Irrigation Department is pouring out its water in greatest abundance, the sub-soil water is steadily falling.

The rainfall accounts for the rise of the spring-level in August, September, and October, but yet we find that the rise is not proportionate to the rainfall. Less rain fell in 1871 than in the previous year, yet the spring-level rose; so with 1874 and 1875. The rainfall alone does not therefore account for the phenomena. What appears most strange is, that while comparing one year with another there is very little variation of the spring-level, when at its lowest ebb, each year in June or July; there still has been a persistent rise in the daily means of the successive years, excepting

1873. Will this go on increasing, and how far? Engineers must furnish the reply. It is unnecessary to pursue this subject.

11. The sum of the whole matter is, that we have records of epidemics of malarious fever in this district before the introduction of canals into it, as was shown in the former memorandum; that it is therefore unsound reasoning to maintain that the recent epidemic was due to the influence of canal-irrigation; that a comparison of irrigated with not irrigated parts of this district, made in 1875, for the years 1871—74, gave fewer fever deaths per mille in places under the influence of canal-irrigation than in those distant from it, and that the examination of the returns for 1875 gives exactly the same results, and proves that the epidemic is subsiding, as had been before stated would be the case. The figures are thus in harmony with previous history, and tend to show that canals are not the cause of the fever. Neither is the cause to be found in the elevation of the spring-level, for with an increase of the spring-level in 1875, there was a marked diminution of fever. We are thus reduced, as before, to unknown causes, and speculation in unknown regions is unwise and unprofitable. It is most fully conceded here, and without any reservation whatever, that good drainage is the panacea for malarious fevers, as all experience teaches. This is allowed in all hands by all who are in a position to form an opinion on the subject. The object of these memoranda, however, has not been to inculcate this well-known truth, admitted as it is by every one, but rather to expose the groundlessness of the statements made with such confidence on many sides that canal-irrigation has caused the fever.

These statements were so prevalent as to form a general clamour. Canals were emasculating and destroying the people. They could neither till nor reap their fields. They dwelt in the midst of death. To demonstrate, as far as the data in my possession would permit, and from all that I could collect, that facts do not support these notions, has been my sole endeavour. I have aimed only to bring the truth to light, free from theory or bias.

But data for the complete elucidation of this subject are wanting, as was stated on a former occasion. Until the population of single villages becomes the unit of comparison in mortuary returns, and until the collateral points then referred to are carefully ascertained, the results here brought out cannot be said to have been conclusively proved. But while readily making this admission, and greatly regretting the want of the figures necessary for irrefragible proof, I yet venture to assert that enough has been produced to lead those maintaining the ideas here combated, to investigate this important question *de novo* (if they have ever enquired into it before), and no longer to remain satisfied with what seems to be in many cases the mere expression of their own individual opinions, supported by a sort of general reasoning, without an acquaintance with the local facts.

This is not a case for the expression of self-complacent *ipse dixits*, but for a rigid appeal to the best information available.

MEERUT:
The 25th March, 1876.

W. MOIR, M.B., M.A.,
Civil Surgeon.

APPENDICES.

ANNUAL

Deaths registered in the different Districts of the

1. Number.	2. Division.	3. District.	4. Population according to Census of 1872.			5. Area in square miles.		6. Average population per square mile.
			Male.	Female.	Total.	Miles.	Acres.	
1	Kumaun.	Kumaun, ...	231,146	201,742	432,888	6,000	...	72
2	Kumaun.	Garhwál, ...	155,745	154,537	310,282	5,500	...	56
3	Kumaun.	Taraí	102,573	83,074	185,647	919	633	202
4	Rohilkhand.	Bijnor, ...	395,395	341,757	737,152	1,902	603	388
5	Rohilkhand.	Moradabad, ...	596,776	525,355	1,122,131	2,271	582	494
6	Rohilkhand.	Bareilly, ...	806,913	699,888	1,506,801	2,982	110	505
7	Rohilkhand.	Sháhjahánpur, ...	511,136	438,335	949,471	1,723	320	551
8	Rohilkhand.	Budaun, ...	503,619	430,729	934,348	2,004	536	466
9	Meerut.	Dehra Dún, ...	68,044	47,667	115,711	1,020	471	114
10	Meerut.	Saháranpur	484,502	399,274	883,782	2,217	...	399
11	Meerut.	Muzaffarnagar, ...	375,608	314,474	690,082	1,659	229	416
12	Meerut.	Meerut, ...	685,484	588,510	1,273,914	2,360	264	541
13	Meerut.	Bulandshahr,... ...	493,682	442,911	936,593	1,910	...	490
14	Meerut.	Aligarh, ...	577,263	495,845	1,073,108	1,969	455	547
15	Agra.	Etah, ...	382,746	320,739	703,485	1,512	...	465
16	Agra.	Muttra, ...	480,615	406,740	887,355	1,611	498	551
17	Agra.	Farukhabad, ...	499,722	419,026	918,748	1,744	473	527
18	Agra.	Mainpuri, ...	426,955	338,828	765,783	1,696	186	452
19	Agra.	Agra, ...	589,562	504,622	1,094,184	1,907	339	575
20	Agra.	Etáwah, ...	369,928	298,653	668,581	1,691	...	395
21	Allahabad.	Cawnpore, ...	619,118	536,321	1,155,439	2,336	596	495
22	Allahabad.	Fatehpur, ...	345,583	318,282	663,815	1,585	435	419
23	Allahabad.	Jaunpur, ...	545,709	480,169	1,025,869	1,556	...	659
24	Allahabad.	Hamírpur, ...	276,196	252,941	529,137	2,286	384	232
25	Allahabad.	Bánda, ...	359,765	337,846	697,611	2,908	439	240
26	Allahabad.	Allahabad, ...	715,110	679,135	1,394,245	2,747	190	508
27	Benares.	Gorakhpur, ...	1,078,072	941,278	2,019,350	4,578	508	441
28	Benares.	Basti, ...	784,691	688,303	1,472,994	2,789	...	528
29	Benares.	Azamgarh, ...	826,145	705,265	1,531,410	2,565	...	597
30	Benares.	Gházipur, ...	696,572	648,829	1,345,401	2,167	600	621
31	Benares.	Benares, ...	406,344	387,355	793,699	996	121	797
32	Benares.	Mirzapur, ...	520,496	494,797	1,015,293	5,217	313	195
33	Jhánsi.	Jalaun, ...	216,607	187,777	404,384	1,553	...	260
34	Jhánsi.	Jhánsi, ...	167,519	150,216	317,735	1,567	...	203
35	Jhánsi.	Lalitpur, ...	111,625	101,003	212,628	1,947	264	109
		Total for the Province.,	16,406,833	14,362,223	30,769,056	81,402	599	378

FORM No. I.

North-Western Provinces, during the year 1875.

7.	8.			9.			10.	11.
Number of villages in each District.	*Number of deaths registered.*			*Ratio of deaths per 1,000 of the population.*			Mean ratio of deaths per 1,000, during previous six years.	No.
	Male.	Female.	Total.	Male.	Female.	Total.		
6,346	4,797	3,953	8,750	20·75	19·59	20·21	18·39	1
4,203	3,658	2,991	6,649	23·48	19 35	21·42	19·62	2
594	3,288	2,609	5,897	32·08	31 40	31·76	35·80	3
2,067	9,593	8,584	18,177	24 26	25·11	24·65	22·19	4
2,730	12,683	10,557	23,240	21 25	20·09	20·71	21·03	5
3,082	17,908	14,632	32,540	22·19	20 90	21·59	20·94	6
2,004	13,033	10,811	23,844	25·49	24·66	25·11	27·67	7
2,140	12,042	10,010	22,052	23·91	23·23	23·60	17·10	8
396	1,684	1,102	2,786	24 74	23·11	24·07	13·94	9
1,938	11,346	9,022	20,368	23·41	22·59	23·04	26·91	10
885	10,682	8,469	19,151	28·43	26·93	27·75	27·64	11
1,533	19,038	14,524	33,562	27·77	24·67	26·34	25·95	12
1,773	15,564	13,497	29,061	31·52	30·47	31·02	28·11	13
1,797	15,975	12,373	28,348	27·67	24 95	26·41	19·22	14
1,727	9,893	8,188	18,081	25 84	25·52	25·70	20·77	15
822	9,874	7,616	17,490	20·54	18 72	19·71	17·39	16
1,862	11,399	9,210	20,609	22·81	21·97	22·43	16·09	17
1,146	10,471	7,761	18,232	24·52	22 90	23·80	20·67	18
1,436	14,408	11,181	25,589	24·43	22·15	23·38	19·96	19
3,040	8,334	6,350	14,684	22·52	21·25	21·96	21·00	20
2,026	14,366	12,424	26,790	23·20	23 16	23·18	25·55	21
1,458	6,492	5,378	11,870	18·78	16·89	17 88	20·48	22
3,212	10,413	7,919	18,332	19·08	16·49	17·86	16·73	23
752	7,173	5,326	12,499	25·97	21·05	23·62	25·47	24
1,231	8,556	6,766	15,322	23·78	20·02	21·96	21·87	25
3,699	12,852	10,372	23,224	17·97	15·21	16·65	15·64	26
8,248	23,350	16 742	40,092	21·65	17 78	19·85	13·23	27
7,535	11,128	8,894	20,022	14·18	12 92	13·59	13·52	28
6,363	15,056	12,225	27,281	18 22	17·33	17·81	15·10	29
5,206	13,476	11,090	24,566	19·34	17·09	18·25	16·56	30
1,931	8,378	6,461	14,839	20 61	16 67	18·69	17·74	31
5,722	12,609	10,003	22,612	24 92	20·21	22·27	17·95	32
923	5,621	4,067	9,688	25·95	21·65	23·95	21·25	33
678	4,075	3,178	7,253	24·32	21·15	22·82	25·62	34
749	4,367	3,624	7,991	39·12	35·88	37·58	12·12	35
91,274	373,582	297,909	671,491	22·76	20·74	21.82	20·12	

ANNUAL

Deaths registered from ALL CAUSES in the several districts of the

1.	2.								
No.	District,			January.	February.	March.	April.	May.	June.
1	Kumaun	...	...	460	585	431	667	1,210	1,386
2	Garhwál	...	...	517	417	377	397	568	916
3	Tarái	...	...	478	422	377	491	484	352
4	Bijnor	...	...	1,601	937	992	1,608	1,995	1,669
5	Moradabad	...	...	1,347	1,140	1,104	1,709	1,894	1,792
6	Bareilly	...	...	1,821	1,203	1,419	1,932	2,417	2,057
7	Sháhjahánpur	...	...	1,302	1,121	1,121	1,748	1,809	1,648
8	Budaun	...	...	1,217	777	817	1,145	1,265	1,389
9	Debra Dún	...	...	168	149	141	179	675	297
10	Saháranpur	...	...	1,194	1,125	1,133	1,660	2,456	2,158
11	Muzaffarnagar	...	...	1,288	1,124	1,034	1,578	2,238	2,189
12	Meerut	...	...	1,992	1,800	1,478	2,395	2,623	2,701
13	Bulandshahr	...	...	1,596	1,149	1,101	1,379	1,676	1,764
14	Aligarh	...	...	1,585	1,180	1,168	1,351	1,958	2,544
15	Etah	...	...	1,014	809	706	945	1,105	1,326
16	Muttra	...	...	1,045	915	831	1,303	1,608	1,727
17	Farukhabad	...	...	1,385	1,068	904	1,232	1,413	1,622
18	Mainpuri	...	...	1,354	855	1,039	1,000	1,305	1,772
19	Agra	...	...	1,719	1,495	1,645	2,116	2,[illegible]	2,487
20	Etáwah	...	...	1,144	899	862	999	1,030	1,307
21	Cawnpore	...	...	1,654	1,530	1,731	2,577	2,564	2,759
22	Fatehpur	...	...	840	715	814	914	1,160	1,025
23	Jaunpur	...	...	1,047	998	1,313	2,276	1,197	1,086
24	Hamírpur	...	...	820	830	772	702	1,039	1,585
25	Bánda	...	...	1,321	1,297	1,237	1,299	1,699	1,746
26	Allahabad	...	...	1,402	1,415	1,800	2,223	1,953	1,841
27	Gorakhpur	...	...	2,572	2,159	2,392	3,627	3,574	3,445
28	Basti	...	...	935	883	1,307	3,110	1,991	1,322
29	Azamgarh	...	...	1,638	1,478	1,568	2,589	2,160	1,958
30	Gházipur	...	...	1,517	1,436	1,407	1,659	1,774	1,890
31	Benares	...	...	779	737	901	1,498	1,042	1,040
32	Mirzapur	...	...	1,284	1,243	1,627	2,600	2,426	1,984
33	Jalaun	...	...	733	567	501	488	568	669
34	Jhánsi	...	...	487	447	356	365	514	683
35	Lalitpur	...	...	558	634	737	872	935	853
	Total for the Province		...	41,214	35,539	37,133	52,633	56,508	57,019

FORM No. II.

North-Western Provinces, during each month of the year 1875.

3.						4			
						Total.			
July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	No.
1,055	771	598	477	519	591	4,797	3,953	8,750	1
976	816	541	367	354	403	3,658	2,991	6,649	2
260	274	378	682	959	740	3,288	2,609	5,897	3
1,118	1,269	1,625	2,271	1,970	1,722	9,593	8,584	18,177	4
1,497	1,884	2,928	3,102	2,614	2,229	12,683	10,557	23,240	5
1,869	2,196	3,168	4,497	5,761	4,170	17 908	14,632	32,540	6
1,469	1,726	2,179	3,793	3,294	2,584	13,038	10,811	23,844	7
1,583	1,933	2,989	4,108	2,694	2,135	12,042	10,010	22,052	8
171	188	183	225	198	2 2	1,684	1,102	2,786	9
1,480	1,832	2,253	2,091	1,719	1,267	11,346	9,022	20,368	10
1,758	1,500	2,052	1,792	1,372	1,326	10,682	8,469	19,151	11
2,266	2,987	6,944	3,656	2,887	1,833	19,038	14,524	33,562	12
1,939	3,115	6,183	3,985	3,133	2,041	15,564	13,497	29,061	13
2,507	3,925	4,052	3,370	2,941	1,767	15,975	12,373	28,348	14
1,548	1,924	2,767	2,513	2,038	1,366	9,893	8,188	18,081	15
1,476	1,494	2,452	1,898	1,622	1,119	9,874	7,616	17,490	16
1,565	1,986	2,858	2,990	2,041	1,545	11,399	9,210	20,609	17
1,855	1,621	2,256	2,192	1,457	1,536	10,471	7,761	18,232	18
1,757	2,207	3,416	2,773	2,004	1,787	14,408	11,181	25,589	19
12,32.	1,246	1,949	1,696	1,269	1,051	8,334	6,350	14,684	20
1,892	2,363	2,699	2,875	2,452	1,694	14,366	12,424	26,790	21
721	867	1,151	1,342	1,184	1,137	6,492	5,378	11,870	22
1,149	1,827	1,907	2,088	1,901	1,543	10,413	7,919	18,332	23
922	1,154	1,399	1,253	1,065	958	7,173	5,326	12,499	24
851	1,032	1,306	1,356	1,231	945	8,566	6,766	15,322	25
1,512	2,017	2,145	2,480	2,418	2,018	12,652	10,372	23,224	26
3,217	3,160	3,517	3,807	4,527	4,095	23,350	16,742	40,092	27
1,088	1,103	1,498	1,665	2,579	2,541	11,128	8,894	20,022	28
2,060	2,522	2,857	3,214	2,975	2,262	15,056	12,225	27,281	29
2,780	2,317	2,784	2,803	2,492	2,207	13,476	11,090	24,566	30
1,109	1,447	1,796	1,691	1,646	1,153	8,378	6,461	14,839	31
1,583	1,801	2,072	2,079	2,090	1,823	12,609	10,003	22,612	32
954	917	1,617	1,389	970	622	5,621	4,067	9,688	33
530	778	851	867	713	662	4,075	3,178	7,253	34
689	615	587	492	435	554	4,367	3,624	7,991	35
49,540	58,844	80,057	77,872	69,524	55,508	373,582	297,909	671,491	

ANNUAL

Deaths registered from DIFFERENT CAUSES in the

1.	2.	3.			4.		
		Population according to Census of 1872.			*Cholera.*		
Numbers.	District.	Male.	Female.	Total.	Male.	Female.	Total.
1	Kumaun	231,146	201,742	432,888	7	5	12
2	Garhwál	155,745	154,537	310,282	299	288	587
3	Tarái	102,573	83,074	185,647	15	16	31
4	Bijnor	395,895	341,757	737,152	213	193	406
5	Moradabad	596,776	525,355	1,122,131	437	357	794
6	Bareilly	806,913	699,888	1,506,801	387	343	730
7	Sháhjahánpur	511,136	438,335	949,471	539	524	1,063
8	Budaun	503,619	430,729	934,348	990	751	1,741
9	Dehra Dún	68,044	47,667	115,711	257	111	368
10	Saháranpur	484,508	399,274	883,782	284	220	504
11	Muzaffarnagar	375,608	314,474	690,082	288	273	561
12	Meerut	685,404	588,510	1,273,914	932	642	1,574
13	Bulandshahr	493,682	442,911	936,593	1,293	1,088	2,381
14	Aligarh	577,263	495,845	1,073,108	1,381	991	2,372
15	Etah	382,746	320,739	703,485	1,030	831	1,861
16	Muttra	480,615	406,740	887,355	395	338	733
17	Farukhabad	499,722	419,026	918,748	1,263	1,060	2,323
18	Mainpuri	426,955	338,822	765,783	1,086	685	1,771
19	Agra	589,562	504,622	1,094,184	475	394	869
20	Etáwah	369,928	298,653	668,581	483	337	820
21	Cawnpore	619,118	536,321	1,155,439	652	509	1,161
22	Fatehpur	345,533	318,282	663,815	232	174	406
23	Jaunpur	545,700	480,169	1,025,869	807	634	1,441
24	Hamírpur	276,196	252,941	529,137	692	491	1,183
25	Bánda	359,765	337,846	697,611	681	485	1,166
26	Allahabad	715,110	679,135	1,394,245	821	562	1,383
27	Gorakhpur	1,078,072	941,278	2,019,350	1,463	1,199	2,662
28	Basti	784,691	688,302	1,472,994	2,155	1,873	4,028
29	Azamgarh	826,145	705,265	1,531,410	931	716	1,647
30	Gházipur	696,572	648,829	1,345,401	350	325	675
31	Benares	406,344	387,355	793,699	663	433	1,094
32	Mirzapur	520,496	494,797	1,015,293	1,244	1,003	2,247
33	Jalaun	216,607	187,777	404,384	258	241	499
34	Jhánsi	167,519	150,216	317,735	5	6	11
35	Lalitpur	111,625	101,003	212,628	1	1	2
	Total for the Province ...	16,406,833	14,362,223	30,769,056	23,007	18,099	41,106

FORM No. III.

Districts of the North-Western Provinces during the year 1875.

5.			6.			7.						
Small-pox.			*Fevers.*			*Bowel Complaints.*			Injuries. *Suicide.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Numbers.
1	4	5	2,272	1,780	4,052	1,086	975	2,061	19	26	45	1
12	4	16	1,606	1,163	2,769	1,250	1,126	2,376	25	17	42	2
38	50	88	2,931	2,266	5,197	217	212	429	3	...	3	3
1,022	282	2,004	5,069	4,460	9,529	1,886	1,652	3,538	9	30	39	4
845	738	1,583	6,829	5,839	12,668	2,748	2,192	4,940	25	23	48	5
464	392	856	13,257	10,867	24,124	2,426	1,866	4,292	10	29	39	6
361	411	772	7,934	6,418	14,352	2,083	1,709	3,792	37	118	155	7
157	198	355	6,114	5,098	11,212	2,961	2,448	5,409	20	44	64	8
1	...	1	928	623	1,551	328	249	577	1	...	1	9
1,216	1,060	2,276	6,500	5,176	11,676	2,320	1,782	4,102	10	15	25	10
916	787	1,703	8,141	6,380	14,521	888	717	1,605	5	9	14	11
158	103	261	15,139	11,631	26,770	1,536	1,187	2,723	4	10	14	12
365	316	681	12,010	10,473	22,483	1,347	1,131	2,478	9	14	23	13
611	511	1,122	9,971	7,622	17,593	2,863	2,344	5,207	16	21	37	14
184	206	390	7,340	6,071	13,411	387	297	684	19	30	49	15
337	276	613	6,119	4,628	10,747	2,141	1,665	3,806	3	18	21	16
144	139	283	7,371	5,916	13,287	1,421	1,120	2,541	22	62	84	17
109	107	2 6	8,634	6,470	15,104	297	208	505	10	42	52	18
483	394	877	10,326	8,192	18,518	1,740	1,205	2,945	25	32	57	19
127	103	230	6,823	5,250	12,073	453	299	752	9	12	21	20
470	427	897	10,986	9,678	20,664	1,109	804	1,913	6	17	23	21
204	204	408	3,786	3,202	6,988	1,291	985	2,276	12	23	35	22
85	107	192	8,701	6,603	15,304	163	84	247	4	20	24	23
482	369	851	3,611	2,693	6,304	1,524	1,034	2,558	10	54	64	24
1,199	1,007	2,206	4,847	3,708	8,555	924	750	1,674	17	42	59	25
242	190	432	8,414	6,993	15,407	1,875	1,440	3,315	24	35	59	26
362	259	621	16,992	11,977	28,969	1,413	823	2,236	12	47	59	27
229	189	418	7,311	5,651	12,972	414	258	672	6	21	27	28
99	114	213	11,400	9,205	20,605	1,582	1,191	2,773	8	68	76	29
112	119	231	11,838	9,461	21,299	482	376	858	7	52	59	30
118	120	238	5,501	4,435	9,936	1,220	784	2,004	6	29	35	31
315	270	585	8,748	7,067	15,815	580	372	952	14	28	42	32
110	103	213	3,472	2,406	5,838	972	742	1,714	16	41	57	33
331	223	554	2,364	1,932	4,296	721	509	1,230	20	60	80	34
1,770	1,658	3,428	1,052	844	1 896	690	463	1,153	13	20	33	35
13,679	12,140	25,819	2,51,297	2,02,188	456,485	45,338	34,999	80,337	456	1,109	1,555	

ANNUAL

Deaths registered from DIFFERENT CAUSES in the

Numbers.	District.	8. Injuries—(concluded.)									Total Injuries.
		Wounds.			*Accident.*			*Snake-bite or killed by Wild Beasts.*			
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female	Total.	
1	Kumaun	32	28	60	94	46	140	19	21	40	285
2	Garhwál	34	20	54	67	62	129	16	21	37	262
3	Tarái	8	4	12	17	12	29	6	6	12	56
4	Bijnor	16	11	27	79	70	149	64	102	166	381
5	Moradabad...	44	41	85	125	103	2 8	83	90	173	534
6	Bareilly	23	12	35	172	138	310	91	132	223	607
7	Sháhjahánpur	24	4	28	166	114	282	68	82	150	615
8	Budaun	33	23	56	176	140	318	72	115	187	625
9	Dehra Dún...	4	2	6	10	7	17	3	6	9	33
10	Saháranpur	29	19	48	57	53	110	14	20	34	217
11	Muzaffarnagar	8	7	15	89	47	136	25	17	42	207
12	Meerut	7	3	10	98	108	206	19	28	47	277
13	Bulandshahr	8	9	17	59	63	122	11	11	22	184
14	Aligarh	19	13	32	86	81	167	23	21	44	280
15	Etah	13	2	15	57	43	100	28	22	50	214
16	Muttra	18	14	32	128	97	225	20	18	38	316
17	Farukhabad	24	20	44	151	79	230	28	35	63	421
18	Mainpuri	22	6	28	121	81	202	24	24	48	330
19	Agra	73	52	125	136	126	262	20	25	45	439
20	Etáwah	15	7	22	62	51	113	39	62	101	257
21	Cawnpore	18	11	29	139	115	254	63	88	151	457
22	Fatehpur	15	10	25	136	123	259	52	61	113	432
23	Jaunpur	8	5	13	194	165	359	54	82	136	532
24	Hamírpur	22	6	28	62	78	140	36	41	77	309
25	Bánda	24	13	37	121	119	240	115	214	329	665
26	Allahabad	22	12	34	261	288	549	74	114	188	830
27	Gorakhpur...	18	5	23	252	283	535	231	285	516	1,133
28	Basti	12	7	19	226	228	454	120	143	263	763
29	Azamgarh	38	13	51	237	308	545	54	79	133	805
30	Gházipur	14	12	26	227	352	579	48	88	136	800
31	Benares	18	10	28	148	143	291	41	73	114	468
32	Mirzapur	21	13	34	163	157	320	88	140	228	624
33	Jalaun	16	5	21	43	33	76	45	44	89	243
34	Jhánsi	11	5	16	50	55	105	19	27	46	247
35	Lalitpur	18	4	22	36	36	72	20	20	40	167
	Total ...	729	428	1,157	4,249	4,004	8,253	1,738	2,357	4,090	15,065

FORM No. III.

Districts of the North-Western Provinces, during the year 1875.

9.			10.			11.									12.
						Ratio of Deaths Per 1,000 of Population.									
All other Causes.			*Total of Deaths from all Causes*									*From all Causes.*			
Male.	Female.	Total.	Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	Male.	Female.	Total.	*Numbers.*
1,267	1,068	2,335	4,797	3,953	8,750	·02	·01	9·36	4·76	·65	5·39	20·75	19 59	20·21	1
349	290	639	3,658	2,991	6,649	1·89	·05	8 92	7·65	·84	2·05	23·48	19·35	21·42	2
53	43	96	3,288	2,609	5,897	·16	·47	27·99	2·31	·30	0·51	32·05	31·40	31·76	3
1,235	1,084	2,319	9,593	8,584	18,177	·55	2 71	12·92	4·79	·51	3 14	24·26	25·11	24·65	4
1,547	1,174	2,721	12,683	10,557	23,240	·70	1·41	11·28	4·40	·47	2·42	21·25	20·09	20·71	5
1,078	853	1,931	17,908	14,632	32,540	·48	·56	16·01	2·84	·40	1·28	22·19	20·90	21·59	6
1,819	1,431	3,250	13,033	10,811	23,844	1·11	·81	15·11	3·99	·64	3·42	25·49	24·66	25·11	7
1,517	1,193	2,710	12,042	10,010	22,052	1·86	·37	11·29	5·78	·66	2·90	23 91	23·23	23·60	8
152	104	256	1,684	1,102	2,786	3·18	...	13·40	4·98	·28	2·21	24·74	23·11	24·07	9
916	677	1,593	11,346	9,022	2 ,368	·57	2·57	13·21	4·64	·24	1·80	23·41	22·59	23·04	10
322	232	554	10,682	8,469	19,151	·81	2·46	21·04	2·32	·29	0·80	28·43	26·93	27·75	11
1,145	812	1, 57	19,038	14,524	33,562	1·23	·20	21 01	2·13	·21	1·53	27·77	24·67	26·34	12
462	392	854	15,564	13,497	29,061	2·54	·72	24·00	2·64	·19	0·91	31·52	30·47	31·02	13
1,005	769	1,774	15,975	12,373	28,348	2·21	1·04	16 39	4·85	·26	1 65	27·67	24·95	26·41	14
835	686	1,521	9,893	8,188	18,081	2 64	·55	19·06	0·97	·31	2·16	25·84	25·52	25·70	15
713	562	1,275	9,874	7,616	17,490	·8	·69	12·11	4·28	·35	1·43	20 54	18·72	19·71	16
975	779	1,754	11,399	9,210	20,609	2·52	·30	14·46	2·76	·45	1 90	22·81	31·97	22·43	17
168	138	306	10,471	7,761	18,232	2·31	·26	19·72	0·65	·43	·39	24·52	22 90	23·80	18
1,130	761	1,891	14,4 8	11,181	25,589	·79	·80	16·92	2 69	·44	1 72	24 43	22 15	23·38	19
323	229	552	8,334	6,350	14,684	1 22	·34	18·05	1·12	·38	·32	22 52	21·25	21·96	20
923	775	1,698	14,366	12,424	26,790	1·00	·77	17·88	1 65	·39	1·47	23·20	23·16	23·18	21
764	596	1,360	6,492	5,378	11,870	·61	·61	10·52	3·42	·65	2·04	18·78	16·29	17·88	22
397	219	616	10,413	7,919	18,332	1 40	·18	14·91	0·24	·51	·60	19·08	16·49	17·86	23
734	560	1,294	7,173	5,326	12,499	2·23	1·60	11·91	4 84	·58	2·44	25·97	21·05	23·62	24
628	428	1,056	8,556	6,766	15,322	1·67	3·16	12·26	2·29	·95	1·51	23 78	20·02	21·96	25
1,119	738	1,857	12,852	10,372	23,224	·99	·30	11·05	2 37	·59	1·33	17·97	15·21	16·65	26
2,037	1,864	4,471	23,950	16,742	40,092	1 31	·30	14 34	1·10	·56	2·21	21·65	17·78	19·85	27
655	514	1,169	11,128	8,894	20,022	2·73	·28	8·80	0·45	·51	·79	14·18	12·92	13·59	28
707	531	1,238	15,056	12,225	27,281	1·07	·13	13·45	1·81	·52	·80	18·22	17·33	17·81	29
398	305	703	13,4 6	11,090	24,566	·50	·17	15 83	0·63	·59	·52	19·34	17·9	18·25	30
665	434	1,099	8,378	6,460	14,839	1·37	·29	12·51	2 52	·58	1·38	20·61	16·67	18·69	31
1,436	953	2,389	12,609	10,003	22,612	2 21	·57	15·57	0 93	·61	2·35	24·22	20·21	22·27	32
729	452	1,181	5,621	4,067	9,688	1·23	·52	14·43	4·23	·60	2·92	25·95	21·65	23·95	33
554	361	915	4,075	3,178	7,253	·03	1·74	13·52	3 87	·77	2 87	24·32	21·15	22·82	34
767	578	1,345	4,567	3,524	7,991	...	16·12	8·91	5·42	·78	6·32	39·12	35·68	37·58	35
30,094	22,585	52,679	373,592	297,909	67 1,491	1,33	·83	14 83	2·61	·48	1·71	22·76	20·74	21·82	

ANNUAL FORM No. IV.

Deaths registered according to AGE in several districts of the North-Western Provinces, during the year 1875.

Numbers.	District.	*Infants children unable to walk.*		*Boys and girls.*		*Adults.*		*Old people.*		*Total.*			Numbers.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	
1	Kumaun. ...	1,264	1,064	1,12[illegible]	991	1,049	817	1,336	1,091	4,797	3,953	8,750	1
2	Garhwál, ...	993	828	66[illegible]	532	874	713	1,124	918	3,658	2,991	6,649	2
3	Tarái, ...	526	534	887	783	906	578	9[illegible]9	714	3,288	2,6[illegible]9	5,897	3
4	Bijnor, ...	2,966	3,018	2,349	2,136	1,630	1,283	2,648	2,157	9,593	8,584	18,177	4
5	Moradabad, ...	3,812	3,475	3,339	2,573	2,078	1,725	3,454	2,784	12,683	10,557	23,240	5
6	Bareilly, ...	4,210	3,798	4,153	3,336	3,747	2,894	5 798	4,604	17,908	14,632	32,540	6
7	Sháhjahánpur, ...	3,945	3,531	2,985	2,644	2,015	1,671	4,0[illegible]6	2,965	13,03[illegible]	10,811	23,844	7
8	Budaun, ...	3,766	3,352	2,500	1,955	2,094	1,755	3,682	2,918	12,042	10,01[illegible]	22,052	8
9	Dehra Dún, ...	168	236	237	196	619	388	560	282	1,684	1,'0[illegible]	2,786	9
10	Saháranpur, ...	3,152	2,920	2,348	1,809	2,38[illegible]	1,921	3,168	2,372	11,04[illegible]	9,022	20,368	10
11	Muzaffarnagar, ...	3,6[illegible]5	2,980	2,550	1,703	1,920	1,733	2,587	2,053	10,6[illegible]2	8,469	19,151	11
12	Meerut, ...	3,962	3,136	4,759	3,140	4,840	3,916	5,471	4,332	19,033	14,524	33,562	12
13	Bulandshahr, ...	3,236	2,989	4.827	4,068	3,237	2,901	4,254	3.539	15,564	13,497	29,061	13
14	Aligarh, ...	3,146	2,606	4,950	3,600	2,93[illegible]	2,537	4,948	3,630	15,975	12,37[illegible]	28,348	14
15	Etah, ...	2,776	2,530	2,169	1,526	1,850	1,725	3,098	2,407	9,893	8,188	18,081	15
16	Muttra, ...	1,6[illegible]9	1,303	2,940	2,120	2,041	1,623	3,284	2,570	9,874	7,616	17,490	16
17	Farukhabad, ...	2,42[illegible]	2,185	2,256	1,593	2,386	2,243	4,332	3,189	11,399	9,210	20,609	17
18	Mainpuri, ...	1,921	1,723	1,928	1,322	2,782	2 195	3,840	2,521	10,471	7,761	18,232	18
19	Agra, ...	2,816	2,335	3,247	2,401	3,029	2,506	5,316	3,939	14,408	11,181	25,589	19
20	Etawah, ...	1,686	1,465	1,240	970	2,148	1,669	3,260	2 246	8.334	6,350	14 684	20
21	Cawnpore, ...	4,139	3,528	2,331	2,017	2,892	2,700	5,004	4,179	14,36[illegible]	12,424	26,790	21
22	Fatehpur, ...	998	773	1,078	827	1,99[illegible]	1,763	2,425	2,015	6,492	5,378	11,870	22
23	Jaunpur. ...	1,204	906	2,293	1,708	3,219	2,314	3,697	2,961	10,413	7,919	18,332	23
24	Hamirpur, ...	1,244	1,086	1,326	1,009	1,852	1,187	2,75[illegible]	2,044	7,173	5,325	12,499	24
25	Bánda, ...	1,[illegible]54	1,069	2,038	1,674	2,446	1,696	2,766	2,327	8,556	6,766	15,322	25
26	Allahabad, ...	2,390	1,817	2,697	2,078	3,371	2,731	4,391	3,746	12,852	10,372	23 224	26
27	Gorakhpur, ...	3,999	2,775	4,675	3,519	7,321	4,991	7,358	5,457	23,356	16,742	40,032	27
28	Basti, ...	1,589	1,210	2,826	2,093	3,383	2,719	3,330	2,837	11,128	8,894	20,022	28
29	Azamgarh, ...	2,382	1,817	3,470	2,403	3,719	3,257	5,485	4,748	15,056	1[illegible],225	27,281	29
30	Ghazipur, ...	2,335	1,706	3,416	2,444	3,441	3,086	4,284	3,854	13,476	11,090	24,566	30
31	Benares, ...	1,484	1,165	1,609	1,25[illegible]	2,421	1,771	2,914	2,275	8 8[illegible]8	6,46[illegible]	14,839	31
32	Mirzapur, ...	2,231	1,611	2,653	2,192	3,923	2,906	3,742	2,204	12,609	10,003	22,612	32
33	Jalaun, ...	1,067	855	860	591	1,416	976	2,278	1,644	5,621	4,067	9,688	33
34	Jhánsi, ...	1,035	842	733	569	1,093	809	1,214	958	4,075	3,178	7,253	34
35	Lalitpur, ..	1,312	1,313	1,483	1,183	78[illegible]	582	784	546	4,367	3,624	7,991	35
	Total for the Province,	81,068	68,512	85,008	64,940	87,847	70,311	119,659	91,146	373,582	297 909	671,491	

ANNUAL FORM No. V.

Deaths registered according to CLASSES in the several districts of the North-Western Provinces, during the year 1875.

1.	2.	3.				4.				5.				
		Population according to Census of 1872.				*Number of deaths Registered.*				*Ratio of deaths per* 1,000 *of Population.*				
Numbers.	District.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Numbers.
1	Kumaun	425,963	5,569	1,356	432,888	8,634	112	4	8,750	20·26	20·11	2·94	20·21	1
2	Garhwál	308,398	1,799	85	310,282	6,626	17	6	6,649	21·48	9·44	70·58	21·42	2
3	Tarái	122,657	62,977	13	185,647	3,316	2,581	...	5,897	27·03	4·98	...	31·76	3
4	Bijnor	493,601	243,455	96	737,152	12,205	5,971	1	18,177	24·72	24 52	10·41	24·65	4
5	Moradabad ...	751,779	369,949	403	1,122,131	15,523	7,708	9	23,240	20·64	20·83	22·33	20·71	5
6	Bareilly	1,197,583	308,682	536	1,506,801	25,537	6,698	5	32,540	21·57	21·69	9 32	21·59	6
7	Sháhjahánpur ...	822,576	126,599	296	949,471	20,847	2,989	8	23,844	25·34	23·60	27·02	25·11	7
8	Budaun	794,532	139,687	129	934,348	18,417	3,634	1	22,052	23·17	26·01	77·51	23·60	8
9	Dehra Dún ...	102,814	12,420	477	115,711	2,389	363	34	2,786	23 23	29·22	71 27	24·07	9
10	Sahárunpur ...	604,422	279,015	345	883,782	13,730	6,635	3	20,368	22 71	23·77	8 69	23·04	10
11	Muzaffarnagar ...	498,950	191,097	35	690,082	13,393	5,755	1	19,151	26·84	30·11	28 57	27·75	11
12	Meerut	991,226	281,857	831	1,273,914	25,652	7,893	17	33,562	25·87	28 00	20·45	26·34	12
13	Bulandshahr ...	760,602	175,900	91	936,593	23,227	5,833	1	29,061	30·53	33 16	10·98	31·02	13
14	Aligarh	955,121	117,911	76	1,073,108	25,312	3,034	2	28,348	26·50	25·73	26·31	26·41	14
15	Etah	686,149	67,278	58	703,485	16,305	1,775	1	18,081	25·63	26·38	17·24	25·70	15
16	Muttra	812,995	74,347	13	887,355	16,181	1,305	4	17,490	19 91	17·55	307·69	19·71	16
17	Farukhabad ...	816,733	101,538	477	918,748	18,335	2,271	3	20,609	22·44	22·36	6·28	22·43	17
18	Mainpuri ...	724,663	40,965	155	765,783	17,315	915	2	18,232	23·89	22·33	12·90	23·80	18
19	Agra	985,483	107,135	1,566	1,094,184	22,820	2,745	24	25589	23·15	25·62	15·32	23·38	19
20	Etáwah	631,923	36,571	87	668,581	13,750	934	...	14,684	21 75	25·53	...	21·96	20
21	Cawnpore ...	1,065,786	89,215	438	1,155,439	25,042	1,739	9	26,790	23·49	19·49	20·54	23·18	21
22	Fatehpur ...	593,256	70,554	5	663,815	10,605	1,266	...	11,870	17 87	17·94	...	17·88	22
23	Jaunpur	929,525	96,319	25	1,025,869	16,845	1,487	...	18,332	18·12	15·44	...	17·86	23
24	Hamírpur ...	495,339	33,775	23	529,137	11,792	707	...	12,499	23·80	20·93	...	23·62	24
25	Bánda	657,107	40,498	6	697,611	14,539	781	2	15,322	22·12	19 28	333·33	21·96	25
26	Allahabad ...	1,211,778	181,574	893	1,394,245	20,919	2,273	32	23,224	17·26	12·51	35·59	16·65	26
27	Gorakhpur ...	1,819,445	199,372	533	2,019,350	36,682	3,388	22	40,092	20·16	16·99	41·27	19·85	27
28	Basti	1,247,201	225,784	9	1,472,994	17,167	2,855	...	20,022	13·76	12·64	...	13·59	28
29	Azamgarh ...	1,333,895	197,581	24	1,531,410	23,837	3,442	2	27,281	17·87	17·42	83·33	17·81	29
30	Gházipur ...	1,221,810	123,455	136	1,345,401	22,643	1,919	4	24,566	18 54	15·54	29·41	18·25	30
31	Benares	714,510	78,844	345	793,699	13,642	1,185	12	14,839	19 09	15 02	34·77	18·69	31
32	Mirzapur ...	949,654	64,889	750	1,015,293	21,383	1,227	2	22,612	22·51	18 90	2 66	22·27	32
33	Jalaun	378,855	25,528	1	404,384	9,122	563	3	9,688	24·07	22 05	...	23·95	33
34	Jhánsi	305,151	12,417	167	317,735	7,006	245	2	7,253	22·95	19·73	11·97	22·82	34
35	Lalitpur	207,686	4,782	160	212,628	7,876	114	1	7,991	37·92	23·83	6 25	37·58	35
	Total for the Province,	26,569,068	4,189,348	10,640	30,769,056	578,915	92,359	217	671,491	21·78	22·04	20·39	21·28	

ANNUAL

Deaths registered from CHOLERA in several districts of the

1.	2.	3.						
Numbers.	District.	*Population according to Census of 1812.*			January.	February.	March.	April.
		Male.	Female.	Total.				
1	Kumaun	231,146	201,742	432,888	...	...	1	...
2	Garhwál	155,745	154,537	310,282	...	...	...	3
3	Tarái	102,573	83,074	185,647	...	...	...	...
4	Bijnor	395,395	341,757	737,152	1	2	4	11
5	Moradabad	596,776	525,355	1,122,131	2	4	3	5
6	Bareilly	806,913	699,888	1,506,801	...	...	...	5
7	Sháhjahánpur	511,136	438,335	949,471	...	...	...	6
8	Budaun	503,619	430,729	934,348	...	2	9	8
9	Dehra Dún	68,044	47,667	115,711	...	...	...	...
10	Saháranpur	484,508	399,274	883,782	1	...	2	3
11	Muzaffarnagar	375,608	314,474	690,082	...	...	...	1
12	Meerut	685,404	588,510	1,273,914	1	...	...	...
13	Bulandshahr	493,682	442,911	936,593	2	1	...	7
14	Aligarh	577,263	495,845	1,073,108	...	1	1	8
15	Etah	382,746	320,739	703,485	1	...	1	2
16	Muttra	480,615	406,740	887,355	2	2	3	9
17	Farukhabad	499,722	419,026	918,748	6	5	10	15
18	Mainpuri	426,955	338,828	765,783	...	...	...	1
19	Agra	589,562	504,622	1,094,184	1	...	11	16
20	Etawáh	369,928	298,653	668,581	...	...	1	14
21	Cawnopre	619,118	536,321	1,155,439	5	3	10	175
22	Fatehhpur	345,533	318,282	663,815	...	1	4	44
23	Jaunpur	545,700	480,169	1,025,869	...	40	277	704
24	Hamírpur	276,196	252,941	529,137	...	1	...	11
25	Banda	359,765	337,846	697,611	...	3	...	122
26	Allahabad	715,110	679,135	1,394,245	2	59	151	408
27	Gorakhpur	1,078,072	941,278	2,019,350	...	...	37	633
28	Basti	784,691	688,303	1,472,994	...	...	274	1,824
29	Azamgarh	826,145	705,255	1,531,410	...	11	33	607
30	Gházipur	696,572	648,829	1,345,401	...	...	...	126
31	Benares	406,344	387,355	793,699	10	17	122	607
32	Mirzapur	520,496	494,797	1,015,293	1	8	145	656
33	Jalaun	216,607	187,777	404,384	...	...	...	...
34	Jhánsi	167,519	150,216	317,735	...	...	...	...
35	Lalitpur	111,625	101,003	212,628	...	...	...	...
	Total for the Province ...	16,406,833	14,362,223	30,769,056	35	160	1,099	6,081

FORM No. VI.

North-Western Provinces, during each month of the year 1875.

4.								5.			6.			
								Total.			*Ratio of deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female	Total.	Numbers.
4	...	...	...	1	6	...	...	7	5	12	·03	·02	·02	1
6	103	361	92	18	...	...	4	299	288	587	1·91	1·86	1·89	2
...	...	...	8	8	15	...	...	15	16	31	·14	·19	·16	3
12	2	9	3	77	192	85	8	213	193	406	·53	·56	·55	4
5	6	6	173	445	123	21	1	437	357	794	·73	·67	·70	5
3	6	3	13	411	241	44	4	387	343	730	·47	·49	·48	6
23	2	19	17	127	596	246	27	539	524	1,063	1·05	1·19	1·11	7
4	11	67	76	503	808	210	43	990	751	1,741	1·96	1·74	1·86	8
298	67	3	...	...	...	...	...	257	111	368	3·77	2·32	3·18	9
21	54	35	129	212	46	...	1	284	220	504	·58	·55	·57	10
9	4	26	186	304	31	...	...	288	273	561	·76	·86	·81	11
...	12	141	443	949	20	7	1	932	642	1,574	1·35	1·09	1·23	12
15	30	66	891	1,283	83	3	...	1,593	1,088	2,381	2·61	2·45	2·54	13
33	216	457	1,037	570	41	6	2	1,381	991	2,372	2·39	1·99	2·21	14
53	170	354	410	634	212	30	4	1,030	831	1,861	2·69	2·59	2·64	15
80	183	159	93	139	14	43	7	395	338	733	·82	·83	·82	16
167	278	343	340	666	470	22	1	1,363	1,060	2,323	2·52	2·52	2·52	17
30	427	619	229	395	68	2	...	1,086	685	1,771	2·53	2·02	2·31	18
4	76	44	230	437	46	3	1	475	394	869	·80	·78	·79	19
4	122	175	158	312	34	...	...	483	337	820	1·30	1·12	1·22	20
191	209	179	141	137	103	8	...	652	509	1,161	1·05	·94	1·00	21
163	94	13	46	33	8	...	...	232	174	406	·67	·55	·61	22
115	56	52	96	70	30	1	...	807	634	1,441	1·47	1·32	1·40	23
232	549	131	59	127	73	...	...	692	491	1,183	2·50	1·94	2·23	24
495	500	45	1	...	...	...	...	681	485	1,166	1·89	1·43	1·67	25
414	298	25	13	9	3	1	...	821	562	1,383	1·14	·82	·99	26
729	657	313	151	102	21	1	18	1,463	1,199	2,662	1·35	1·27	1·31	27
990	425	150	15	6	4	86	274	2,155	1,873	4,028	2·74	2·72	2·73	28
359	248	135	137	50	27	10	...	931	716	1,647	1·12	1·01	1·07	29
158	154	85	67	58	13	14	...	350	325	675	·50	·50	·50	30
151	55	24	49	18	29	9	3	661	433	1,094	1·62	1·11	1·37	31
808	361	175	70	10	7	3	3	1,244	1,003	2,247	2·39	2·02	2·21	32
4	45	60	43	312	35	...	...	258	241	499	1·19	1·28	1·23	33
...	...	1	...	2	8	...	...	5	6	11	·02	·03	·03	34
...	...	1	1	...	...	...	...	1	1	2	·00	·00	·00	35
5,610	5,420	4,255	5,417	8,415	3,407	855	402	23,007	18,099	41,106	1·40	1·26	1·33	

ANNUAL

Deaths registered from SMALL POX in several districts of the

1.	2.	3.			4.					
Number.	District.	*Population according to Census of 1872.*			January.	February.	March.	April.	May.	June.
		Male.	Female.	Total.						
1	Kumaun, ...	231,146	901,742	432,888	...	1	...	...	...	1
2	Garhwál, ...	155,745	154,537	301,282	...	...	1	1	2	8
3	Tarái, ...	102,573	83,074	185,647	3	4	1	29	25	18
4	Bijnor, ...	395,395	341,757	737,152	101	129	169	372	483	403
5	Moradabad, ...	596,776	525,353	1,122,131	71	103	152	250	324	271
6	Bareilly, ...	806,913	699,888	1,506,801	94	35	56	95	174	139
7	Sháhjahánpur, ...	511,136	438,335	949,471	65	59	77	117	148	146
8	Budaun, ...	503,619	430,729	934,348	10	11	16	44	56	50
9	Debra Dún, ...	68,044	47,667	115,711	...	...	...	...	...	...
10	Saháranpur, ...	484,508	399,274	883,782	59	64	102	203	504	469
11	Muzaffarnagar, ...	375,608	314,474	690,082	15	20	50	232	415	445
12	Meerut, ...	685,404	588,510	1,273,914	10	16	16	78	67	25
13	Bulandshahr, ...	493,682	442,911	936,593	23	21	46	91	158	111
14	Aligarh, ...	577,263	495,845	1,073,108	65	56	80	100	227	309
15	Etah, ...	382,746	320,739	703,485	2	15	16	32	103	61
16	Muttra, ...	480,615	406,740	887,355	17	31	56	140	146	115
17	Farukhabad, ...	499,722	419,026	918,748	5	19	10	26	42	62
18	Mainpuri, ...	426,955	338,828	765,783	11	10	17	27	37	49
19	Agra, ...	589,562	504,622	1,094,184	35	44	92	159	196	182
20	Etáwah, ...	369,9?8	298,553	668,581	16	10	32	32	34	33
21	Cawnpore, ...	619,118	536,321	1,155,439	51	62	79	213	192	188
22	Fatehpur, ...	345,533	318,282	663,815	33	19	31	88	79	76
23	Jaunpur, ...	545,700	480,169	1,025,869	17	21	27	53	39	22
24	Hamírpur, ...	276,196	252,941	529,137	72	69	75	134	143	140
25	Bánda, ...	359,765	337,846	697,611	352	437	495	393	227	164
26	Allahabad, ...	715,110	679,135	1,394,245	29	27	39	116	78	53
27	Gorakhpur, ...	1,078,072	941,278	2,019,350	47	53	90	93	58	49
28	Basti, ...	784,691	688,303	1,472,994	17	27	54	116	60	31
29	Azamgarh, ...	826,145	705,265	1,531,410	29	31	29	52	21	11
30	Gházipur, ...	696,572	648,829	1,345,401	18	23	33	40	35	20
31	Benares, ...	406,344	387,355	793,699	4	19	63	32	24	28
32	Mirzapur, ...	520,496	494,797	1,015,293	72	50	75	82	78	54
33	Jalaun, ...	216,607	187,777	404,384	13	13	16	19	32	26
34	Jhánsi, ...	167,519	150,216	317,735	40	39	52	51	79	92
35	Lalitpur, ...	111,625	101,003	212,628	155	217	326	521	670	543
	Total for the Province, ...	16,406,833	14,362,223	30,769,056	1,551	1,755	2,473	4,032	4,946	4,394

FORM No. VII.

North-Western Provinces, during each month of the year 1875.

4.						5.			6.			7.
						Total.			*Ratio of Deaths per 1,000 of Population.*			
July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total	Number.
...	2	...	...	1	...	1	4	5	...	·01	·01	1
3	1	...	...	...	...	12	4	16	·07	·02	·05	2
6	1	...	1	...	...	38	50	88	·37	·60	·47	3
172	56	29	16	16	58	1,022	982	2,004	2·57	2·87	2·71	4
166	69	44	32	27	74	845	738	1,583	1·41	1·40	1·41	5
89	42	44	38	11	39	464	392	856	·57	·56	·56	6
76	22	16	13	14	17	361	411	772	·70	·93	·81	7
52	36	34	16	7	23	157	198	355	·31	·45	·37	8
...	...	1	...	...	...	1	...	1	·01	·00	·00	9
264	175	99	181	106	50	1,216	1,060	2,276	2·50	2·65	2·57	10
274	82	85	33	33	19	916	787	1,703	2·43	2·50	2·46	11
25	8	6	2	...	8	158	103	261	·23	·17	·20	12
57	138	15	6	3	12	365	316	681	·73	·71	·72	13
163	64	33	11	8	6	611	511	1,122	1·05	1·03	1·04	14
66	38	18	28	2	9	184	206	390	·48	·64	·55	15
70	14	8	8	4	4	337	276	613	·70	·67	·69	16
33	24	14	21	16	11	144	139	283	·28	·32	·30	17
37	10	4	6	7	1	109	107	216	·25	·31	·28	18
85	18	24	9	12	21	483	394	877	·81	·78	·80	19
25	10	5	22	8	3	127	103	230	·34	·34	·34	20
49	21	3	28	3	3	470	427	897	·75	·79	·77	21
25	13	10	6	12	17	204	204	408	·59	·64	·61	22
10	7	4	...	2	...	85	107	192	·15	·22	·18	23
84	55	25	11	10	33	482	369	851	·174	1·45	1·60	24
67	29	13	8	9	12	1,199	1,007	2,206	·333	2·98	3·16	25
46	14	13	6	6	5	242	190	432	·33	·27	·30	26
44	29	40	31	31	56	362	259	621	·33	·27	·30	27
29	16	13	10	19	26	229	189	418	·29	·27	·28	28
9	8	7	3	11	2	99	114	213	·11	·16	·13	29
12	17	11	4	6	12	112	119	231	·16	·18	·17	30
19	12	8	2	16	10	118	120	238	·23	·30	·29	31
43	33	25	15	37	21	315	270	585	·60	·54	·57	32
53	16	12	5	3	5	110	103	213	·50	·54	·52	33
74	32	38	9	8	40	331	223	554	1·97	1·40	1·74	34
390	222	99	58	76	151	1,770	1,658	3,428	15·85	16·41	16·12	35
2,617	1,333	805	639	524	750	13,679	12,140	25,819	·83	8·4	·83	

ANNUAL

Deaths registered from FEVER in the several districts of the

1.	2.	3.			4.				
Number.	District.	*Population according to Census of* 1872.			January.	February.	March.	April.	May.
		Male.	Female.	Total.					
1	Kumaun	231,146	201,742	432,888	239	292	202	323	515
2	Garhwál	155,745	154,537	310,282	238	261	194	206	225
3	Tarái	102,573	83,074	185,647	449	393	351	433	417
4	Bijnor	395,395	341,757	737,152	610	554	549	841	1,032
5	Moradabad	596,776	525,355	1,122,131	836	673	580	898	995
6	Bareilly	806,913	699,888	1,506,801	1,455	980	1,143	1,459	1,889
7	Sháhjahánpur	511,136	438,335	949,471	770	656	637	993	1,060
8	Budaun	503,619	430,729	934,348	820	498	521	705	817
9	Dehra Dún	68,044	47,667	115,711	114	100	92	123	255
10	Saháranpur	484,508	399,274	883,782	860	797	732	998	1,324
11	Muzaffarnagar	375,608	314,474	690,082	1,143	991	866	1,216	1,645
12	Meerut	685,404	588,510	1,273,914	1,807	1,622	1,319	2,065	2,320
13	Bulandshahr	493,682	442,911	936,593	1,471	1,054	983	1,194	1,415
14	Aligarh	577,263	495,845	1,073,108	1,215	866	863	993	1,354
15	Etah	382,746	320,739	703,485	860	698	609	778	833
16	Muttra	480,615	406,740	887,355	743	685	593	850	1,059
17	Farukhabad	499,722	419,026	918,748	1,099	840	696	917	918
18	Mainpuri	426,955	338,828	765,783	1,365	780	954	904	1,160
19	Agra	589,562	504,622	1,094,184	1,370	1,227	1,231	1,616	1,623
20	Etáwah	369,928	293,653	663,581	1,042	801	727	852	878
21	Cawnpore	619,118	536,321	1,155,439	1,360	1,228	1,370	1,960	1,818
22	Fatehpur	345,533	318,282	663,815	532	493	538	520	592
23	Jaunpur	545,700	480,169	1,025,869	976	848	920	1,400	949
24	Hamírpur	276,196	252,941	529,137	516	546	436	360	417
25	Bánda	359,765	337,846	697,611	729	667	563	592	700
26	Allahabad	715,110	679,135	1,394,245	989	923	1,251	1,257	1,083
27	Gorakhpur	1,078,072	941,278	2,019,350	2,157	1,719	1,836	2,184	2,100
28	Basti	784,691	688,303	1,472,994	784	736	817	966	754
29	Azamgarh	826,145	705,265	1,531,410	1,421	1,233	1,283	1,596	1,517
30	Gházipur	696,572	648,829	1,345,401	1,386	1,325	1,247	1,297	1,449
31	Benares	406,344	387,355	793,699	614	530	522	650	696
32	Mirzapur	520,496	494,797	1,015,293	974	1,001	1,155	1,523	1,275
33	Jalaun	216,607	187,777	404,384	474	393	340	339	402
34	Jhánsi	167,519	150,216	317,735	300	274	218	211	296
35	Lalitpur	111,625	101,003	212,628	172	192	175	157	127
	Total for the Province ...	16,406,833	14,362,223	30,769,056	31,798	26,816	26,513	33,316	35,909

FORM No. VIII.

North-Western Provinces, during each month of the year 1875.

June.	July.	August.	September.	October.	November.	December.	5. Total. Male.	Female.	Total.	6. Ratio of deaths per 1,000 of Population. Male.	Female.	Total.	Number.
654	442	295	291	257	263	279	2,272	1,780	4,052	9·82	8·82	9'36	1
376	212	311	210	220	195	181	1,606	1,163	2,769	10·31	7·52	8'92	2
291	205	204	305	561	894	694	2,931	2,266	5,197	28·57	27·27	27'99	3
859	521	608	762	1,144	1,087	962	5,069	4,460	9,529	12·82	13·05	12'92	4
957	774	864	1,317	1,798	1,588	1,388	6,829	5,839	12,668	11·44	11·11	11,28	5
1,501	1,199	1,476	1,853	3,179	4,455	3,935	13,257	10,867	24,124	16·42	15 52	16'01	6
966	780	885	1,248	2,276	2,231	1,850	7,934	6,418	14,352	15·52	14·64	15'11	7
864	860	956	1,149	1,663	1,255	1,104	6,114	5,098	11,212	12·14	11·83	11'99	8
154	95	115	120	151	131	101	928	623	1,551	13 63	13·06	13'40	9
1,125	747	866	1,083	1,248	1,094	802	6,500	5,176	11,676	13·41	12·96	13.21	10
1,537	1,238	990	1,331	1,450	1,112	1,003	8,141	6,380	14,521	21·67	20·28	21'04	11
2,401	1,858	1,937	4,375	2,996	2,474	1,596	15,139	11,631	26,770	22 08	19·70	21'01	12
1,498	1,524	1,650	3,960	3,317	2,707	1,710	12,010	10,473	22,483	24·32	23·64	24'00	13
1,559	1,324	1,832	2,120	2,127	2,093	1,247	9,971	7,622	17,593	17·27	15·37	16'39	14
928	938	1,156	1,671	1,922	1,766	1,244	7,340	6,071	13,411	19·17	18·92	19'06	15
1,081	756	781	1,853	1,112	1,005	729	6,119	4,628	10,747	12·73	11 37	12'11	16
942	856	1,082	1,434	1,909	1,508	1,086	7,371	5,916	13,287	14·75	14·09	14'46	17
1,203	1,076	1,230	1,699	1,979	1,383	1,471	8,634	6,470	15,104	20 22	19·09	19'72	18
1,739	1,232	1,432	2,146	2,043	1,508	1,351	10,326	8,192	18,518	17·51	16·23	16'92	19
995	935	905	1,436	1,459	1,099	944	6,823	5,250	12,073	18 44	17·57	18'05	20
2,027	1,382	1,837	2,056	2,249	2,032	1,405	10,986	9,678	20,664	17 74	18·04	17'88	21
564	386	493	691	858	678	643	3,786	3,202	6,988	10·95	10·05	10'52	22
881	955	1,519	1,678	1,925	1,801	1,452	8,701	6,603	15,304	15·94	13 75	14'91	23
562	380	505	650	694	673	565	3,611	2,693	6,304	13·07	10·64	11'91	24
810	504	627	884	913	900	666	4,847	3,708	8,555	13 47	10·97	12'26	25
1,117	1,038	1,295	1,469	1,812	1,786	1,337	8,414	6,993	15,407	11 76	10·29	11'05	26
2,068	2,052	2,165	2,472	3,032	3,831	3,353	16,992	11,977	28,969	15·76	12·72	14'34	27
703	682	774	1,150	1,371	2,202	2,033	7,311	5,661	12,972	9 31	8·22	8'80	28
1,426	1,535	1,783	2,199	2,521	2 300	1,791	11,400	9,205	20,605	13·79	13·05	13'45	29
1,553	1,905	1,840	2,368	2,567	2,3:1	2,051	11,838	9,461	21,299	16·99	14·58	15'83	30
716	716	929	1,263	1,218	1,209	873	5,501	4,435	9,936	13·53	11·44	12'51	31
1,235	987	1,285	1,577	1,649	1,645	1,509	8,748	7,067	15,815	16·80	14·28	15'57	32
409	340	506	749	784	676	426	3,432	2,406	5,838	15·84	12·81	14'43	33
388	292	434	472	539	468	389	2,364	1,932	4,296	14·11	12·86.	13'52	34
139	92	153	206	174	151	158	1,052	844	1,896	9·42	8 35	8'91	35
36,323	30,918	35,720	49,747	55,137	55,511	41,777	254,297	202,188	456,485	15 49	14 07	14'83	

ANNUAL

Deaths registered from BOWEL COMPLAINTS *in the Several Districts of*

1.	2.	3.							
		Population according to Census of 1872.							
Numbers.	District.	Male.	Female.	Total.	January.	February.	March.	April.	May.
1	Kumaun	231,146	201,742	432,888	80	87	73	134	378
2	Garhwál...	155,745	154,537	310,282	176	144	107	116	267
3	Tarái	102,573	83,074	185,647	22	8	13	19	37
4	Bijnor	395,395	341,757	737,152	172	151	159	222	282
5	Moradabad	596,776	525,355	1,122,131	269	197	222	321	346
6	Bareilly	806,913	699,888	1,506,801	163	95	115	208	210
7	Sháhjahánpur	511,136	438,335	949,471	148	169	171	337	320
8	Budaun	503,619	430,729	934,348	179	128	133	174	214
9	Dehra Dún	68,044	47,667	115,711	38	26	21	34	93
10	Saháranpur	484,508	399,274	883,782	191	191	204	308	425
11	Muzaffarnagar	375,608	314,474	690,082	93	66	72	84	118
12	Meerut	685,404	588,510	1,273,914	72	53	38	73	77
13	Bulandshahr	493,682	442,911	936,593	52	41	39	47	52
14	Aligarh	577,263	495,845	1,073,108	198	148	123	158	245
15	Etah	382,746	320,739	703,485	40	27	14	24	27
16	Muttra	480,615	406,740	887,355	181	112	95	203	212
17	Farukhabad	499,722	419,026	918,748	145	95	80	139	150
18	Mainpuri...	426,955	338,828	765,783	25	33	21	17	15
19	Agra	589,562	504,622	1,094,184	156	113	147	158	176
20	Etáwah	369,928	298,653	668,581	47	47	52	69	52
21	Cawnpore	619,118	536,321	1,155,439	126	97	152	151	211
22	Fatehpur	345,533	318,282	663,815	174	107	113	158	193
23	Jaunpur...	545,700	480,169	1,025,869	13	23	15	39	20
24	Hamírpur	276,196	252,941	529,137	141	127	147	120	163
25	Bánda	359,765	337,846	697,611	144	97	97	91	134
26	Allahabad	715,110	679,135	1,394,245	222	236	200	240	190
27	Gorakhpur	1,078,072	941,278	2,019,350	110	108	143	398	356
28	Basti	784,691	688,303	1,472,994	27	28	34	66	54
29	Azamgarh	826,145	705,265	1,531,410	91	92	120	217	109
30	Gházipur	696,572	648,829	1,345,401	33	22	33	68	36
31	Benares	406,344	387,355	793,699	71	79	95	117	88
32	Mirzapur	520,496	494,797	1,015,293	62	43	70	102	52
33	Jalaun	216,607	187,777	404,384	118	70	77	72	63
34	Jhánsi	167,519	150,216	317,735	67	78	39	59	71
35	Lalitpur	111,625	101,003	212,628	83	86	105	86	60
	Total for the Province ...	16,406,833	14,362,223	30,769,056	3,929	3,218	3,339	4,829	5,496

FORM No. IX.

the North-Western Provinces, during each month of the year 1875.

4.							5.			6.			7.
							Total.			*Ratio of deaths per 1,000 of Population.*			
June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Numbers.
399	287	184	123	93	105	118	1,086	975	2,061	4·69	4·83	4·76	1
361	313	329	243	85	93	142	1,250	1,126	2,376	8·02	7·28	7·65	2
33	38	50	52	82	44	31	217	212	429	2·11	2·55	2·31	3
262	212	279	410	547	439	403	1,886	1,652	3,538	4·76	4·83	4·79	4
335	294	427	722	764	622	421	2,748	2,192	4,940	4·60	4·17	4·40	5
191	223	391	588	748	848	512	2,426	1,866	4,292	3·00	2·66	2·84	6
273	296	388	432	456	466	342	2,083	1,709	3,792	4·07	3·89	3·99	7
237	325	482	830	1,187	910	610	2,961	2,448	5,409	5·87	5·68	5·78	8
55	46	44	45	49	55	71	328	249	577	4·82	5·22	4·98	9
358	300	450	616	445	352	262	2,320	1,782	4,102	4·78	4·46	4·64	10
157	149	139	229	206	158	134	888	717	1,605	2·36	2·27	2·32	11
67	96	382	1,196	352	217	100	1,536	1,187	2,723	2·24	2·01	2·13	12
98	240	344	673	401	289	202	1,347	1,131	2,478	2·72	2·55	2·64	13
306	385	739	1,036	928	611	330	2,863	2,344	5,207	4·95	4·72	4·85	14
30	60	93	164	126	59	21	387	297	684	1·01	·92	·97	15
236	363	421	745	579	418	241	2,141	1,665	3,806	4·45	4·09	4·28	16
149	185	299	431	361	257	250	1,421	1,120	2,541	2·84	2·67	2·76	17
25	64	83	87	83	27	25	297	208	505	·69	·61	·65	18
262	223	311	498	435	265	201	1,740	1,205	2,945	2·95	2·38	2·69	19
84	42	87	80	86	71	35	453	299	752	1·22	1·00	1·12	20
171	125	143	244	219	157	117	1,109	804	1,913	1·79	1·49	1·65	21
141	136	146	205	261	222	320	1,291	985	2,276	3·73	3·09	3·42	22
15	30	41	12	16	13	10	163	84	247	·29	·17	·24	23
186	188	324	385	290	245	242	1,524	1,034	2,558	5·51	4·08	4·83	24
109	79	136	179	285	190	133	924	750	1,674	2·56	2·21	2·39	25
186	158	268	347	421	460	397	1,875	1,440	3,315	2·62	2·12	2·37	26
264	231	197	152	108	70	99	1,413	823	2,236	1·31	·87	1·10	27
33	28	66	82	67	112	75	414	258	672	·52	·30	·45	28
148	158	334	343	428	434	299	1,582	1,191	2,773	1·91	1·68	1·81	29
73	73	189	137	64	65	65	482	376	858	·69	·57	·63	30
114	178	262	289	276	257	177	1,220	784	2,004	3·00	2·02	2·52	31
64	94	83	97	110	91	84	580	372	952	1·11	·75	·93	32
82	112	199	329	319	261	112	972	742	1,714	4·48	3·95	4·23	33
101	72	148	187	170	114	124	721	509	1,230	4·30	3·38	3·87	34
78	92	113	120	129	103	96	690	463	1,153	6·18	4·57	5·42	35
5,683	5,895	8,571	12,308	11,176	9,090	6,803	45,338	34,999	80,337	2·76	2·43	2·61	

ANNUAL

Annual Statement of BIRTHS AND DEATHS registered within the limits of

1.	2.	3.	4.	5.	6.		
Division.	District.	Number.	Name of Municipality.	Population according to census of 1872.	Births.		
					Male.	Female.	Total.
Kumaun.	Kumaun ...	1	Almora ...	4,125	59	38	97
		2	Naini Tal ...	3,511	42	36	78
	Tarái ...	3	Káshipur ...	13,221	327	257	584
Rohilkand.	Bijnor ...	4	Bijnor ...	13,066	345	352	697
		5	Chándpur ...	12 033	310	285	595
		6	Dhámpur ...	6.555	148	150	298
		7	Nagina ...	19.696	483	39)	873
		8	Najibabad ..	19,656	433	380	813
	Moradabad ...	9	Moradabad ...	59 866	1,181	943	2,124
		10	Dhanaura ...	5,287	90	63	153
		11	Chandausi ...	23,540	376	351	727
		12	Amroha ...	34,779	810	729	1,539
		13	Sambhal ...	34,639	521	393	914
	Bareilly ...	14	Bareilly ...	90,691	1,765	1,400	3,165
		15	Pilibhít ...	29,840	484	452	936
		16	Bisalpur ...	9,250	230	224	454
	Sháhjahánpur ...	17	Sháhjahánpur ...	79,487	1,584	1,321	2,905
		18	Tilhar ...	18,825	495	441	936
	Budaun ...	19	Budaun ...	31,227	850	779	1,629
		20	Bilsi ...	6,115	140	134	274
		21	Ujháni ...	7,656	181	189	370
		22	Sahaswán ...	17,061	382	346	728
Meerut.	Dehra Dún ...	23	Dehra ...	15,971	171	106	277
		24	Mussooree ...	1,464	22	17	39
	Saháranpur ...	25	Saháranpur ...	45,019	1,110	823	1,933
		26	Hardwár Union ...	18,739	394	294	688
		27	Deoband ...	19,383	334	281	615
	Muzaffarnagar ...	28	Kairána ...	17,742	445	324	769
		29	Káadhla ...	11,026	293	249	542
		30	Muzaffarnagar ...	10,793	226	165	391
		31	Sháamli ...	9,300	116	113	229
	Meerut ...	32	Meerut ...	51,991	925	802	1,727
		33	Ghaziabad ...	10 366	165	127	292
		34	Baraut ...	8,404.	158	171	329
		35	Bágpat ...	7,367	143	119	262
		36	Shahadara ...	7,257	186	143	329
		37	Hápur ...	14,544	224	224	448
		38	Pilkhuwa ...	5,938	99	69	168
	Bulandshahr ...	39	Bulandshahr ...	14,812	270	265	535
		40	Anúpshahr ...	9,336	154	169	323
		41	Sikandarabad ...	18,349	340	321	661
		42	Khúrja ...	26,858	384	327	711
	Aligarh ...	43	Koil ...	55,846	930	780	1,710
		44	Háthras ...	30,900	799	624	1,423
		45	Sikandra Rao ...	10,814	236	172	408
		46	Atrauli ...	15,622	323	276	599
		47	Harduaganj ...	5,205	79	72	151
Agra.	Etah ...	48	Etah ...	8,044	128	102	238
		49	Saron ...	18,658	232	219	451
		50	Kíganj ...	15,764	334	296	630
		51	Márehra ...	9,214	180	145	325
		52	Aliganj ...	7,912	151	140	291
	Muttra ...	53	Muttra ...	58,840	1,046	992	2,038
		54	Kosi ...	12,770	268	254	522
		55	Brindaban ...	21,004	365	333	698
	Farukhabad ...	56	Farukhabad ...	75,951	1,399	1,002	2,401
	Mainpuri ...	57	Mainpuri ...	18,601	381	247	628
	Agra ...	58	Agra ...	150,677	2,731	2,463	5,194
		59	Jalesar ...	14.902	304	286	590
		60	Fatehpur Síkri ...	8 513	156	136	292
		61	Firozabad ...	13,788	205	158	363

FORM No. X.

the several Municipalities in the North-Western Provinces, during the year 1875.

7.	8.			9.	10.	11.	Remarks.
Ratio of Births to 1,000 of the population.	Deaths.			Ratio of deaths to 1,000 of the population.	Number.	Name of Municipality.	
	Male.	Female.	Total.				
23·51	51	49	100	24·24	1	Almora.	
22·2	88	49	137	39·02	2	Naini Tal.	
44·17	240	160	400	30·25	3	Káshipur.	
53·34	230	288	518	39·64	4	Bijnor.	
49·44	292	253	545	45·29	5	Chándpur.	
45·46	99	113	212	32·34	6	Dhámpur.	
44·52	338	323	661	33·56	7	Nagina.	
41·36	287	239	526	26·76	8	Najíbabad.	
25·47	1,326	1,137	2,463	41·14	9	Moradabad.	
28·23	85	51	136	25·72	10	Dhanaura.	
30·88	355	300	655	27·82	11	Chandausí.	
44·25	557	559	1,116	32·08	12	Amroha.	
26·38	354	310	664	19·16	13	Sambhal.	
34·89	1,601	1,628	3,229	35·60	14	Bareilly.	
31·36	455	298	753	25·23	15	Pilibhít.	
49·08	234	186	420	45·40	16	Bísalpur.	
36·54	984	854	1,838	23·12	17	Sháhjahánpur.	
49·72	354	292	646	34·31	18	Tilhar.	
52·16	702	577	1,279	40·95	19	Budaun.	
44·80	122	129	251	41·04	20	Bilsi.	
48·32	152	190	342	44·67	21	Ujháni.	
42·67	282	305	587	34·40	22	Saháswan.	
17·34	311	209	520	32·55	23	Dehra.	
26·63	65	24	89	60·79	24	Mussooree.	
42·93	829	746	1,575	34·98	25	Saháranpur.	
36·71	345	203	548	29·24	26	Hardwár Union.	
31·72	315	281	596	30·74	27	Deoband.	
43·34	403	342	745	41·99	28	Kairána.	
49·15	218	232	450	40·31	29	Kandhla.	
36·22	151	147	298	27·61	30	Muzaffarnagar.	
24·62	195	145	340	36·55	31	Shámli.	
33·21	1,194	1,076	2,270	43·66	32	Meerut	
28·16	222	201	423	40·30	33	Gháziabad.	
39·14	204	173	377	44·85	34	Baraut.	
35·56	252	204	456	61·89	35	Bágput.	
45·33	169	147	316	43·54	36	Shahadra.	
30·80	365	380	745	51·22	37	Hápur.	
28·29	143	138	281	47·32	38	Pilkhuwa.	
36·11	430	371	801	54·07	39	Bulandshahr.	
34·56	226	223	449	48·09	40	Anúpshahr.	
36·02	563	604	1,167	63·60	41	Sikhandrabad.	
26·47	414	381	795	29·60	42	Khárja.	
30·61	998	990	1,988	35·59	43	Koil.	
46·05	881	867	1,748	56·56	44	Háthras.	
37·72	292	146	438	40·50	45	Sikandra Rao.	
38·34	447	395	842	53·89	46	Atrauli.	
29·01	90	86	176	33·81	47	Harduaganj.	
28·59	160	120	280	34·80	48	Etah	
33·02	303	286	589	43·12	49	Suron.	
39·96	392	348	740	46·94	50	Kásganj.	
35·27	160	159	319	34·62	51	Marehra.	
36·77	148	155	303	38·29	52	Aliganj.	
34·63	1,257	1,238	2,495	42·40	53	Muttra.	
40·87	248	213	461	36·10	54	Kosi.	
33·23	429	399	828	39·42	55	Brindaban.	
31·61	968	957	1,925	25·34	56	Farukhabad.	
33·76	522	461	983	52·84	57	Mainpuri.	
34·45	2,833	2,520	5,353	35·52	58	Agra.	
39·59	361	318	679	45·56	59	Jalesár.	
34·30	140	128	268	31·48	60	Fatehpur Síkri.	
26·32	189	137	326	23·64	61	Firozabad.	

ANNUAL

Annual Statement of BIRTHS AND DEATHS registered within the limits of the

1.	2.	3.	4.	5.	6.		
Division.	District.	Number.	Name of Municipality.	Population according to census of 1872.	Births.		
					Male.	Female.	Total.
Etáwah.	Etáwah	62	Etáwah ...	30,549	566	422	988
		63	Jaswantnagar ...	5,310	91	48	119
Allahabad.	Cawnpore ...	64	Cawnpore ...	98,476	1,180	885	2,065
	Fatehpur ...	65	Fatehpur ...	19,064	488	400	888
	Jaunpur ...	66	Jaunpur ...	35,003	632	470	1,102
	Bánda ...	67	Bánda ...	26,642	306	227	533
	Allahabad ...	68	Allahabad ...	145,864	1,039	645	1,684
Benares.	Gorakhpur ...	69	Gorakhpur ...	51,633	1,066	950	2,016
	Azamgarh ...	70	Azamgarh ...	15,980	271	203	474
	Gházipur ...	71	Gházipur ...	39,508	749	655	1,395
		72	Ballia ...	10,275	139	111	250
	Benares ...	73	Benares ...	187,341	2,269	1,686	3,955
	Mirzapur ...	74	Mirzapur ...	77,229	982	786	1,768
		75	Chunar ...	12,289	195	157	352
Jhánsi.	Jaloun ...	76	Orai ...	5,158	163	113	276
		77	Kálpi ...	15,570	291	218	509
		78	Kúnch ...	14,448	306	295	601
	Jhánsi ...	79	Jhánsi ...	1,596	28	20	48
		80	Mau Ránípur ...	23,123	597	504	1,101
	Lalitpur ...	81	Lalitpur ...	8,976	217	158	375
			Total ...	2,236,844	39,188	32,409	71,597

FORM No. X.

several Municipalities in the North-Western Provinces, during the year 1875—(concluded).

7.	8.			9.	10.	11.	Remarks.
Ratio of Births to 1,000 of the population.	Deaths.			Ratio of deaths to 1,000 of the population.	Number.	Name of Municipality.	
	Male.	Female.	Total.				
32·34	553	492	1,045	34·20	62	Etáwah.	
22·41	202	163	365	68·73	63	Jaswantnagar.	
20·96	1,581	1,462	2,993	30·39	64	Cawnpore.	
46·57	431	392	823	43·17	65	Fatehpur.	
31·48	644	436	1,080	30·85	66	Jaunpur.	
20·01	350	323	673	25·26	67	Bánda.	
11·54	1,170	867	2,037	13·96	68	Allahabad.	
39·04	733	652	1,385	26·82	69	Gorakhpur.	
29·66	256	247	503	31·47	70	Azamgarh.	
35·30	533	516	1,049	26·55	71	Gházipur.	
24·33	157	140	297	28·90	72	Ballia.	
21·11	1,962	1,465	3,427	18·29	73	Benares.	
22·89	926	763	1,689	21·87	74	Mirzapr.	
28·64	210	165	375	30·51	75	Chunaru.	
53·50	166	97	263	50·98	76	Orai.	
32·69	292	242	534	34·29	77	Kálpi.	
41·59	343	326	669	46·30	78	Kánch.	
30·07	27	18	45	28·19	79	Jhánsi.	
47·61	415	341	756	32·69	80	Mau Ránípur.	
41·77	208	154	362	40·32	81	Lalitpur.	
32·00	38,129	33,701	71·830	32·11			

ANNUAL

Statement showing the deaths registered in all CANTONMENTS, of the

1.	2.	3.	4.				*Cholera.*			*Small-pox.*			*Fevers.*			*Bowel Complaints.*		
			Class.															
Number.	Cantonment.	Population according to Census of 1872.	Christian.	Mahomedan.	Hindoo.	Other Classes.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	Chakráta ...	1,009	...	19	23	3	1	...	1	...	...	...	21	8	29	4	1	5
2	Landour ...	791	1	7	9	1	...	...	...	...	...	...	7	5	12	1	...	1
3	Dehra Dún ...	1,132	...	...	3	...	2	...	2	...	...	...	...	1	1	...	...	...
4	Roorkee ...	1,153	...	8	12	16	...	...	...	...	...	...	16	18	34	1	...	1
5	Meerut ...	26,394	9	237	584	34	34	12	46	...	...	...	321	293	614	15	15	30
6	Naini Tal ...	445	...	...	7	1	...	...	...	...	...	...	4	3	7	...	...	...
7	Ránikhet ...	6,000	...	11	10	17	...	...	...	...	...	...	19	4	23	4	1	5
8	Almora ...	745	...	2	11	...	...	...	...	...	...	...	2	1	3	3	2	5
9	Bareilly ...	5,837	12	28	69	8	...	...	...	...	...	...	41	39	80	8	2	10
10	Moradabad ...	1,043	2	1	4	4	...	...	...	...	...	...	5	1	6	1	...	1
11	Sháhjahánpur ...	5,752	1	31	68	...	2	2	4	3	...	3	21	24	45	15	2	17
12	Fatehgarh ...	4,193	...	15	70	20	...	...	...	...	...	...	22	29	51	12	12	24
13	Agra ...	18,736	3	77	451	3	1	2	3	2	...	2	127	187	314	41	43	84
14	Muttra ...	4,132	...	15	65	2	2	...	2	...	...	...	39	20	59	5	1	6
15	Cawnpore ...	33,840	1	78	280	151	29	23	52	...	1	1	171	120	291	29	20	49
16	Allahabad ...	6,450	3	26	73	14	7	3	10	...	...	...	50	33	83	...	1	1
17	Bánda ...	1,136	6	6	12	6	...	...	...	...	...	...	11	9	20	...	...	...
18	Jhánsi ...	4,162	2	8	20	1	1	...	1	...	...	...	9	7	16	2	1	3
19	Benares ...	5,403	...	46	79	1	...	1	1	1	...	1	40	43	83	9	8	17
20	Chunar ...	144	...	...	...	2	1	...	1	...	...	...	...	...	...	...	...	...
21	Gorakhpur ...	1,014	...	9	18	7	1	...	1	...	...	...	4	10	14	1	...	1
	Total ...	1,29,510	40	617	1,768	291	81	43	124	6	1	7	933	852	1,785	161	109	28

FORM No. XI.

North-Western Provinces, during the year 1875.

5. Injuries.																												7.	8.
Suicide.			*Wounds.*			*Accident.*			*Snake-bite or killed by Wild Beasts*			Total Injuries.	*All other Causes.*			*Total of Deaths from all Causes.*			6. Age at time of Death. *Infants.*		*Boys and Girls.*		*Adults.*		*Old people.*		Ratio of deaths to 1,000 of population.	Numbers.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
...	...	...	...	...	...	...	...	...	1	...	1	1	8	1	9	35	10	45	1	1	3	2	24	5	7	2	44·59	1
...	...	...	...	...	..	2	1	3	...	...	...	3	2	...	2	12	6	18	...	1	2	1	5	2	5	2	22·75	2
...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	2	1	3	...	...	...	1	1	...	1	...	2·65	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	17	19	36	5	4	2	5	3	6	7	4	31·22	4
...	...	...	1	3	4	4	...	4	...	...	...	8	94	72	166	469	395	864	113	105	82	79	117	93	157	118	32·73	5
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	5	3	8	2	...	...	1	2	1	1	1	17·97	6
...	...	...	...	...	...	2	...	2	...	...	...	2	5	3	8	30	8	38	5	2	3	...	15	5	7	1	6·33	7
2	...	2	...	...	...	...	...	...	...	...	...	2	2	1	3	9	4	13	3	1	2	2	2	1	2	...	17·44	8
...	1	1	...	...	...	1	1	2	...	...	...	3	14	10	24	64	53	117	17	13	18	10	13	17	16	13	20·04	9
...	...	...	...	...	...	1	...	1	...	...	...	1	1	2	3	8	3	11	...	...	1	...	4	2	3	1	10·54	10
...	...	...	...	...	...	3	1	4	...	...	...	4	16	11	27	60	40	100	21	10	15	12	13	7	11	11	17·38	11
...	...	...	...	...	...	3	...	3	1	...	1	4	18	8	26	56	49	105	9	5	13	15	14	7	20	22	25·05	12
...	...	...	5	2	7	3	2	5	1	...	1	13	66	52	118	246	288	534	84	99	49	73	41	59	72	57	28·50	13
...	1	1	...	...	...	2	...	2	1	1	2	5	5	5	10	54	28	82	7	2	9	9	19	5	19	12	19·84	14
...	...	...	...	...	...	...	...	...	1	2	3	3	69	45	114	299	211	510	47	31	70	46	104	66	78	68	15·13	15
...	...	...	...	...	...	...	...	...	...	...	...	...	9	13	22	66	50	116	24	12	11	10	18	17	13	11	17·83	16
..	...	...	...	...	...	...	...	...	...	...	...	...	6	4	10	17	13	30	7	4	6	4	2	4	2	1	26·40	17
...	...	...	...	...	...	1	1	2	...	...	...	2	7	2	9	20	11	31	6	2	...	2	6	4	8	3	7·44	18
2	...	2	...	...	...	3	2	5	...	1	1	8	10	6	16	65	61	126	18	12	16	10	13	26	18	13	23·28	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	...	...	...	...	1	1	...	13·88	20
...	...	...	...	...	...	...	...	...	...	...	...	...	7	4	11	13	14	27	2	3	2	3	4	4	5	4	26·62	21
4	2	6	6	5	11	25	8	33	5	4	9	59	340	241	581	1,548	1,268	2,816	371	307	304	285	420	332	453	344	21·74	

No. XII.

Statement showing the deaths registered in the Town and Rural Circles in each District of the North-Western Provinces during the year 1873.

Numbers.	District.	Number of circles	Circles.	Population.	Deaths.	Ratio of deaths to 1,000 of Population.	Remarks.
1	Kumaun	8	Rural Circles...	432,888	8,750	20·21	
2	Garhwál	12	Rural „ ...	310,282	6,649	21·42	
3	Taráí	1	Town „ ...	13,221	400	30·25	
		9	Rural „ ...	172,426	5,497	31·88	
4	Bijnor	5	Town „ ...	77,037	2,594	33·67	
		27	Rural „ ...	660,115	15,583	23·60	
5	Moradabad...	4	Town „ ...	152,824	4,898	32·04	
		22	Rural „ ...	969,307	18,342	18·92	
6	Bareilly	3	Town „ ...	131,684	5,479	41·60	
		27	Rural „ ...	1,375,117	27,061	19·67	
7	Sháhjahánpur	1	Town „ ...	79,487	1,838	23·12	
		23	Rural „ ...	869,984	22,006	25·29	
8	Budaun	2	Town „ ...	48,288	1,865	38·64	
		18	Rural „ ...	886,060	20,186	22·78	
9	Dehra Dún...	6	Rural „ ...	115,711	2,786	24·07	
10	Saháranpur	4	Town „ ...	86,162	2,865	33·25	
		22	Rural „ ...	797,620	17,503	21·94	
11	Muzaffarnagar	3	Town „ ...	39,561	1,493	37·73	
		25	Rural „ ...	650,521	17,658	27·14	
12	Meerut	3	Town „ ...	79,004	3,510	44·42	
		40	Rural „ ...	1,194,910	30,052	25·15	
13	Bulandshahr	4	Town „ ...	71,357	3,034	42·51	
		29	Rural „ ...	865,236	26,027	30·08	
14	Aligarh	4	Town „ ...	113,182	5,016	44·31	
		28	Rural „ ...	959,926	23,332	24·30	
15	Etah	2	Town „ ...	29,422	1,329	45·16	
		16	Rural „ ...	674,063	16,752	24·85	
16	Muttra	3	Town „ ...	97,205	3,784	38·92	
		27	Rural „ ...	790,150	13,776	17·34	
17	Farukhabad	3	Town „ ...	103,367	2,552	24·68	
		26	Rural „ ...	815,381	18,057	22·14	
18	Mainpuri	2	Town „ ...	28,670	1,358	47·36	
		17	Rural „ ...	737,113	16,874	22·89	
19	Agra	3	Town „ ...	179,967	6,358	35·44	
		35	Rural „ ...	914,817	19,237	21·05	
20	Etáwah	1	Town „ ...	30,549	1,045	34·20	
		20	Rural „ ...	638,032	13,639	21·37	
21	Cawnpore	1	Town „ ...	98,476	2,993	30·39	
		26	Rural „ ...	1,056,963	23,797	22·51	
22	Fatehpur	1	Town „ ...	19,064	823	43·17	
		22	Rural „ ...	644,751	11,047	17·13	
23	Jaunpur	1	Town „ ...	35,003	1,080	30·85	
		18	Rural „ ...	990,866	17,252	17·41	
24	Hamírpur	1	Town „ ...	14,515	321	22·11	
		29	Rural „ ...	514,622	12,178	23·66	
25	Bánda	1	Town „ ...	25,642	673	25·26	
		28	Rural „ ...	670,969	14,679	21·83	
26	Allahabad	1	Town „ ...	145,864	2,037	13·96	
		33	Rural „ ...	1,248,381	21,187	16·97	
27	Gorakhpur...	1	Town „ ...	51,633	1,385	26·82	
		35	Rural „ ...	1,967,717	38,707	19·67	
28	Basti	27	Rural „ ...	1,472,994	20,022	13·59	
29	Azamgarh	2	Town „ ...	27,295	967	35·42	
		27	Rural „ ...	1,504,115	26,314	17·49	
30	Gházipur	1	Town „ ...	39,508	1,049	26·55	
		27	Rural „ ...	1,305,893	23,517	18·00	
31	Benares	2	Town „ ...	199,294	3,643	18·27	
		14	Rural „ ...	594,405	11,196	18·83	
32	Mirzapur	2	Town „ ...	89,518	2,064	23·05	
		23	Rural „ ...	925,775	20,548	22·19	
33	Jalaun	3	Town „ ...	40,215	1,589	39·51	
		21	Rural „ ...	364,169	8,099	22·23	
34	Jhánsi	1	Town „ ...	16,428	551	33·54	
		24	Rural „ ...	3,01,307	6,702	22·24	
35	Lalitpur	20	Rural „ ...	212,628	7,991	37·58	
	Total { Town Circles ...	66	...	2,163,942	68,564	31·70	
	Total { Rural „ ...	813	...	28,605,214	602,897	21·07	
	GRAND TOTAL ...	879	...	30,769,056	671,491	21·82	

NOTE.—The Towns containing 10,000 population and upwards have been entered in this statement.

NINTH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

YEAR 1876.

ALLAHABAD:
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1877.

TABLE OF CONTENTS.

SECTION I.

METEOROLOGY OF THE YEAR.

	Page.
Recent orders of the Government of India regarding preparation of the Annual Sanitary Reports	1
Mr. Hill's courtesy in affording Meteorological Tables, ...	*ib.*
Meteorological record for 1876 of Roorkee and Bareilly, Tables I. and II. ...	2
Meteorological record for 1876 of Agra and Lucknow, Tables III and IV. ...	3
Meteorological record for 1876 of Benares, Table V.	4
Concerning climatic conditions of the province and mortality of the year ...	6
Concise statement showing excessive mortality during May, June, and July in North-Western Provinces. ...	6
Comparison of mortality of Rohilkhand in May, June, and July, 1872 and 1876,	7
Note regarding the early established and greatly delayed rainfalls	*ib.*
Table VII. showing price of common food during past seven years	*ib.*
Remarks on the above table	7 & 8
Statement showing price of grain in each district during June and December ...	6

SECTION II.

JAILS.

	Page.
Sanitary condition of Jails	9
Statement of mortality in the Jails of the North-Western Provinces for 1876 ...	*ib.*
Ratio of deaths of the strength of the prisoners of the past seven years ...	*ib.*
By comparison the above witness to an improved sanitary condition of prisoners during 1876	*ib.*
Apparent unfavourable sanitary condition of six Jails in 1876	*ib.*
High ratio of mortality of the above for past seven years	10
Remarks on the above six Jails ...	*ib.*
Generally admirable sanitary condition of the prisoners of the province ...	*ib.*
Concerning the management of the Jails, the credit belongs to Inspector-General and Superintendents of Jails ...	11
Sanitary improvement effected during past year in Bareilly and Gorakhpur prisons,	*ib.*

SECTION III.

GENERAL POPULATION.

Vital Statistics.

	Page.
Table of mortality for 12 years, 1861 to 1876	12
Mortuary registration effected by Police Agency as in 1870	*ib.*
Value of life in certain centres of population...	*ib.*
Defects in registration in certain centres of population	13
Neglect of registration in certain centres of rural population	14
Results of registration in town and rural circles	*ib.*
Registration in towns is more perfect than rural circles	15
Ratio of deaths in comparison with those of other parts of India	*ib.*
Remarks on the above	*ib.*
Class of those who died	*ib.*
Age of those who died	16
Age of those who died in England and Wales in 1871	16
Sex of those who died	17
The excess of male over female births was registered in Municipalities ...	*ib.*
Registration of births and deaths in 81 Municipalities	*ib.*
Incorrect birth and death registration in 11 Municipalities	18
Table showing high death-rate in 11 Municipalities	*ib.*
Probably deaths of outlying villages are included amongst the deaths of Municipality proper	*ib.*
Registration of deaths in Cantonments ...	*ib.*
Concerning receipt date of mortuary return in the Sanitary Commissioner's office	*ib.*
Statement showing average receipt date of mortuary returns at Allahabad ...	19

SECTION IV.

GENERAL HISTORY OF CHIEF DISEASES.

	Page.
Statement of chief causes of deaths in 1876	20
Table showing mortality from cholera for 12 years	*ib.*
Table showing ratio of deaths from cholera for 12 years	*ib.*
The areas of cholera prevalence are shown in cholera map	21
Notes on the above table	*ib.*
Regarding daily cholera reports that were received from 3,281 centres of population	*ib.*
Statement for all the districts from which daily reports were received	*ib.*
List of localities of cholera epidemic prevalence in 1876	22
Table showing registered mortality from small-pox for 12 years	23
Advantage of vaccination in Kumaun, Garhwál, and Dehra districts ...	24
Great stress of mortality from small-pox in five circles of the Jhánsi district ...	*ib.*
The map of small-pox shows areas of small-pox prevalence in 1876 ...	*ib.*
Concerning fever prevalence in 1876 ...	24
Table showing districts of greatest mortality from fever	*ib.*
Statement showing decline in the fever mortality of the Upper Doab districts...	25
The above great result is due to changes brought by canal irrigation and improved drainage	*ib.*
Excessive fever mortality in Mirzapur is the chief cause of excessive rainfall ...	*ib.*
The fever map shows excessive prevalence in Mirzapur circles south of Ganges ...	*ib.*
Statement showing districts of greatest mortality from bowel complaints ...	26
Bowel complaint common in Kumaun, Garhwál, and Bundelkhand country ...	*ib.*
Table of districts of greatest mortality from suicide	*ib.*
Ditto ditto wounds ...	27
Table of snake-bite and attack of wild beasts	*ib.*
Index to the cholera, small-pox, and fever maps	27a to 27f

SECTION V.

General History of Vaccination.

	Page.
Regarding the appearance of this section for the first time in the Sanitary Report...	28
Remarks of the Sanitary Commissioner on the good results of the vaccination ...	ib.
Regarding the employment of vaccinators and the cost of the establishment ...	ib.
Concerning the supply of vaccine virus...	ib.
Regarding Hindus guarding their children against the attack of small-pox, and acknowledging its recovery through the mercy of *Dem*	29
Ideas of better classes of the community that vaccination is becoming acceptable and even desirable	ib.
Table showing successful primary vaccination from 1867 to 1876	29
Table showing deaths from small-pox from 1867 to 1876	ib.
Notes on the above table that it shows good work of the Department ...	30
Concerning successfully vaccinated and died afterwards of small-pox ...	ib.
Result of vaccination in Kumaun Division and Dehra Dún	ib
Table showing births and number of successful primary vaccinations in 1876,	31
Notes on the above table	ib

SECTION VI.

Sanitary Works, Civil.

	Page.
Regarding the sanitary improvements effected in Kumaun, Garhwál, Tarái, Bareilly, Sháhjahánpur, Budaun, and Sahárunpur districts and their towns,	32
Sanitary improvement made in Meerut by the Irrigation Department	ib.
The good effects of the above work improve the death ratios	ib.
Improvement effected in Sardhana, Kutna, Dhaulana, and Dásna towns ...	33
Improvement effected in Begamabad and Farukhnagar towns	34
Mr. Webster's energy in regard to sanitary improvements	ib.
Sanitary improvements made in Bulandshahr, Mainpuri, Benares, and Mirzapur districts	ib.
Works of improvement of Gorakhpur ...	35

SECTION VII.

General Remarks.

	Page.
Employment of Sanitary Commissioner upon three separate duties in inspection season	36
1st.—Orders to inspect villages around Cantonments	ib.
2nd.—Orders to assume sanitary charge of camps at Delhi	ib.
3rd.—Orders to proceed to Kumaun to investigate an outbreak of Mahámari disease	ib.
Sanitary state of villages around Moradabad Cantonment.	
Regarding full and careful notes taken of the villages inspected	37
Concerning the above notes being destroyed at Moradabad by a great rain-storm on 12th January	ib.
State of the villages inspected around the Moradabad Cantonment	ib.
Regarding the most neglected villages Pipalsana and Bhojpur five miles from Cantonment	38
Recommends persistent effort for the improvement of the above	ib.
Sanitary arrangements at Delhi.	
Regarding receiving charge of Sanitary Commissioner of the camps at Delhi ...	ib.
Site of the camps located and its sanitary cleanliness	ib.
Location of animals at distance from the habited site	39
Concerning water-supply to camps ...	ib
Regarding the trouble experienced by the camps for the fenced trenches, and recommends for future a separate 'refiring place for each camp on such occasions	ib.
General health of the camps... ...	ib.
Proceedings in reference to Mahámari Disease.	
Regarding outbreak of mahámari in Garhwál in 1834-35	40
Outbreak of mahámari in certain villages in Garhwál in 1849	ib.
Remarks and opinion on the above by Mr. Batten, the Commissioner of Kumaun,	41
Investigation of Dr. Renny, and his opinion on the disease	41 & 42
Continuance of disease and investigation of Dr. Pearson and Srinath Mukerji, and their opinion	42
Appointment of Dr. Pearson and Dr. Francis, and their opinion on the disease	42
Outbreak of mahámari again in 1860 and 1870	43
Commencement of Dr. Planck's duties in regard to the prevalence of the mahámari disease	ib.
List of villages attacked by mahámari ...	44
Inspection Report on Bált and Bintola villages	ib.
Inspection Report on Sirar	48
Ditto Nainoli ...	53
Ditto Gajulá ...	54
Ditto Saílá	55
Ditto Biraurá ...	56
Ditto Maichore ...	58
Ditto Matoli ...	ib.
Ditto Bánauri ...	59
Ditto Tándá ...	60
Ditto Sajoli	ib.
Ditto Phaliánti ...	61
Ditto Chání	ib.
Ditto Behtá Talá ...	63
Ditto Kansáni ...	ib.
Ditto Khajuli ...	65
Ditto Mangaltá ...	66
Ditto Ajulá	ib.
Ditto Tailihát ...	67
Ditto Kúrúrá ...	68
Ditto Bhandargáon ...	69
Ditto Dugorá ...	70
Ditto Parsáli ...	72
Ditto Súnghar ...	74
Ditto Báret ...	75
Ditto Nankori ...	76
Ditto Sámá ...	77
Ditto Bandhár ...	ib.
Ditto Ganlá ...	79
Ditto Bhamangáon ...	ib.
Ditto Dor ...	ib.
Ditto Chachaina ...	80
Ditto Birtang ...	81
Ditto Darkot ...	82
Ditto Álaur ...	ib.
Ditto Bothi ...	84
Ditto Basantkot ...	85
Ditto Kasiáhárá ...	86
Ditto Gadirá ...	ib.
Summary of the prevalence of mahámari disease	87
General remarks by Dr. Watson on mahámari disease	96

APPENDICES.

			Page.
Annual Form No.	I.	Deaths registered in different districts of North-Western Provinces during 1876	i. to iii.
Ditto	II.	Deaths registered from ALL CAUSES in the districts of North-Western Provinces during 1876	iv. and v.
Ditto	III.	Deaths registered from DIFFERENT CAUSES in North-Western Provinces during 1876	vi. to ix.
Ditto	IV.	Deaths registered according to AGE in North-Western Provinces during 1876	x.
Ditto	V.	Deaths registered according to CLASSES in North-Western Provinces during 1876	xi.
Ditto	VI.	Deaths registered from CHOLERA in North-Western Provinces during 1876	xii. and xiii.
Ditto	VII.	Deaths registered from SMALL-POX in North-Western Provinces during 1876	xiv. and xv.
Ditto	VIII.	Deaths registered from FEVER in North-Western Provinces during 1876	xvi. and xvii.
Ditto	IX.	Deaths registered from BOWEL COMPLAINTS in North-Western Provinces during 1876	xviii. and xix.
Ditto	X.	Births and Deaths registered in the Municipalities in North-Western Provinces during 1876	xx. and xxi.
Ditto	XI.	Deaths registered in all Cantonments of the North-Western Provinces during 1876	xxii. and xxiii.
Statement No.	I.	Showing particulars of vaccination in North-Western Provinces during 1876-77	xxiv. and xxv.
Ditto	II.	Showing the cost of Vaccine Department in North-Western Provinces during 1876-77	xxvi. and xxvii.
Ditto	III.	Showing Dispensary Vaccination in the North-Western Provinces during 1876	xxviii.
Ditto	IV.	Showing number of persons primarily vaccinated and the number of those persons who were successfully vaccinated	xxix.

1876.

NINTH ANNUAL

REPORT OF THE SANITARY COMMISSIONER

OF THE

NORTH-WESTERN PROVINCES.

NOTE.—This report has been prepared, and its sections ordered, in accordance with the Resolution of the Government of India in the Home Department (Sanitary), No. 86, dated 9th May, 1877.

SECTION I.

METEOROLOGY OF THE YEAR.

UNDER the orders above quoted, this section, concerning the meteorology of the year, takes precedence of all sections in the annual sanitary reports. The prominence thus given to this subject renders it necessary that I should treat it more at length now than in former reports.

2. I should say, in proof of the reliance to be placed on the facts recorded, that meteorological observatories, supplied with admirable instruments for observation, are established in this province at (from north to south) Roorkee, Bareilly, Agra, Lucknow, and Benares. The observations at these five stations are carefully recorded by officers specially appointed to that work, and the records are carefully compiled by Mr. Hill, the Meteorological Reporter to Government. To Mr. Hill's courtesy I am indebted for the facts recorded in the meteorological tables of this section.

3. In recent orders received from the Right Hon'ble the Secretary of State for India in Council, it was intimated that in this section the meteorology of the year should be considered in connection with the recorded disease prevalence and mortality of the year.

I undertake this important duty with considerable misgiving, not so much on account of any inherent difficulty in the subject itself, but on account of its magnitude, and the uncertainty of the mortuary figures available. For, to be well done, the work should deal with the meteorological facts of several climates, affecting a wide-spread population of 42,000,000 of persons, and the mortuary figures should be correct. Considering this subject carefully, I have come to the conclusion that it will be necessary to restrict the tables to the record only of the most important meteorological phenomena likely to affect the health of the community; these probably are—atmospheric pressure, temperature of the air at the earth's surface, humidity of the air, and rainfall. And on these four points the record should be as complete as the means at command will permit. This I find will require the preparation of six tables, as follows :—

TABLE I.

Meteorological record for 1876.

ROORKEE.

Months.	*Barometer.*		*Temperature of air.*		*Humidity* 100 = *saturation.*		*Rainfall in inches.*					
	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	1871.	1872.	1873.	1874.	1875.	1876.
January ...	29·124	29·123	56·5	57·3	56·0	57·6	1·02	4·02	1·00	1·06	0·16	0·04
February ...	29·048	29·010	62·0	61·9	52·0	40·2	3·12	1·55	...	2·57	4 38	0·20
March ...	28·964	28 951	70·4	69·4	39·4	38·5	...	0·14	0·32	2·48	...	1·89
April ...	28·851	28·815	81·9	79·2	25·7	20·0	0·10	0·22	...	...	0·05	0·64
May ...	28·744	28·728	88·5	88·7	39·6	25·0	1·82	0·93	1·23	0·33	1·81	1·06
June ...	28·612	28 606	90·6	94·6	45·6	29·0	14·42	3·94	0·19	11·81	0·76	0·23
July ...	28·631	28·594	84·7	85·7	70·5	75·0	20·80	15·42	16·52	16·85	15·43	18·37
August ...	28·699	28·718	84·0	83·8	71·3	77·0	14·20	19·77	10·47	8·62	16 37	14·62
September ...	28·803	28·824	82·4	82·6	66·3	66·0	1·98	7·14	15·61	3·65	7·69	2·08
October ...	28·967	29·019	75·0	72·9	47·9	59·0	...	...	...	...	0·60	2·77
November ...	29·105	29·074	65·0	64·5	43·5	55·0	...	...	0·08	...	...	...
December ...	29·150	29·172	57·8	56·9	52·9	59·0	0·82	0·38	0·46	0·04	...	...
					Total fall	...	58·28	58·51	45·68	47·36	47·20	41·90

TABLE II.

BAREILLY.

January ...	29·405	29·404	57·6	60·4	57·3	53·6	2·10	1·65	0·55	0·05	0·35	...
February ...	29·352	29·344	64 0	64·3	50·0	41·8	0·95	1·05	0·10	0·80	2·35	...
March ...	29·256	29 268	73·3	73·4	40·9	39·1	...	1·05	0·55	0·65	...	0·34
April ...	29·142	29·126	83·8	82·9	31·1	34·0	1·20	0·10	...	...	...	0·91
May ...	29·022	29·014	90·0	91·7	33·3	29·0	2·10	0·95	0·95	0·30	0·23	0·68
June ...	28·920	28·897	91·2	96·5	50·0	31·0	10·75	10·60	0·45	7·65	2·50	1·42
July ...	28·923	28·878	85·8	88·2	75·0	71·0	20·15	17·35	17·80	14·20	28 53	11 27
August ...	29·004	29·024	85·0	85 0	76·4	74 0	6·50	9·15	4·85	10·10	16·95	7·96
September ...	29·103	29·126	83·2	83·5	75·6	71·0	2·20	5·35	2·45	21·75	6 53	4·90
October ...	29·266	29·332	77·3	76·4	54·8	54·0	...	...	...	...	0·02	1 59
November ...	29·402	29·393	67·5	66·8	49·1	42·0	...	...	...	...	...	...
December ...	29·450	29·500	60·1	58·5	54·3	49·0	1·85	0 25	...	...	0·07	...
					Total fall	...	47·80	47·50	34·20	55·50	57·61	29·07

TABLE III.

Meteorological record for 1876.

AGRA.

Months.	*Barometer.*		*Temperature of air.*		*Humidity* 100 = *saturation.*		*Rainfall in inches.*					
	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	1871.	1872.	1873	1874.	1875.	1876.
January	29·452	29·422	59·5	60·7	51·2	45·5	1·60	1·59	0·04	0·06	0·35	...
February	29·395	29 378	66·4	65·9	45·2	35·0	0·27	0·16	0·04	...	2·17	...
March	29·258	29·305	76·6	75·1	36·6	34·0	...	...	0·45	0·13	...	0·16
April	29·178	29·157	87·6	85·6	25·7	17·0	0·42	0·40	...	0·13	...	0·09
May	29·058	29·037	93·9	95·0	27·0	21·0	2·37	1·10	1·25	...	0·57	0·24
June	28·935	28·951	94·6	96·9	44·5	31·0	5·76	1·58	1·89	6·37	0·10	2·74
July	28·935	28·904	86·8	88·3	70·1	70·0	8·94	5·04	16·00	10·33	16·14	6·49
August	29·018	29·042	84·4	85·4	74·5	72·0	9·28	8·60	17·12	9·68	4·59	4 24
September	29·114	29 139	83·2	82·8	71·2	71 0	4·06	4·67	9·58	1·65	12 74	11·65
October	29·290	29·351	77·7	76·5	46·0	48·0	...	...	...	...	0·07	0·07
November	29·438	29·422	70·1	69·5	40·0	36·0	...	...	...	...	...	...
December	29·487	29 529	62·4	61·6	48·4	37·0	0·98	0·23	...	..	...	...
					Total fall		33·68	23·37	46·37	28·35	36·73	25·68

TABLE IV.

LUCKNOW.

January	29·676	29·625	60·2	59·8	53·0	40·5	1·23	1·61	...	0 07	0·10	0·10
February	29·601	29·564	67·0	65·3	45·6	29·2	...	0·53	0·30	0·29	0·37	...
March	29·499	29·486	76·9	74·7	34·4	29·0	...	...	...	0·10	...	0 72
April	29 375	29·336	87·6	83·9	26·9	15·0	...	0 52	...	...	...	0·08
May	29·278	29·240	92·5	92·0	35·7	29·0	1·50	0·68	0·92	...	...	...
June	29·141	29·133	92·5	94·7	53·0	39 0	10·77	1·76	0·51	12·19	0·81	3·55
July	29·144	29·095	86·8	88·0	73 3	63·0	20 57	9 87	13·40	12 89	8 30	7·28
August	29·223	29·230	85·6	85·0	75·9	74·0	5·11	22·77	8·42	17·68	19·71	7 28
September	29·314	29·333	84·0	82·9	73·8	69·0	20·16	3·26	11·13	7·44	14·03	3·15
October	29·494	29·545	78·9	75·2	51·7	54·0	...	...	...	0·37	...	0·84
November	29·646	29·610	69·3	67 4	43·2	39·0	...	...	...	...	...	...
December	29·707	29·725	61·4	59·8	50·2	42·0	2·11	...	...	...	0·20	...
					Total fall		61 45	41·00	34·68	51 08	43·52	23·00

TABLE V.

Meteorological record for 1876.

BENARES.

Months.	*Barometer.*		*Temperature of air.*		*Humidity* 100=*saturation.*		*Rainfall in inches.*					
	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	Mean for 1868-76.	Mean for 1876.	1871.	1872.	1873.	1874.	1875.	1876.
January ...	29·776	29·722	62·7	62·5	51·4	54·3	...	1·65	...	...	1·36	0·05
February ...	29·699	29·597	68·9	68·5	41·0	35·4	0·20	0·40	...	0·27	0·10	...
March ...	29·601	29·579	78·7	77·7	31·2	32·5	0·55	...	0·22	0·12	...	0·02
April ...	29·477	29·431	87·8	86·0	26·3	20·0	1·25	...	...	...	...	...
May ...	29·368	29·328	93·7	93·6	30·0	31·9	0·70	0·80	0·41	...	0·09	0·01
June ...	29·250	29·224	91·9	96·4	52·1	40·0	3·53	5·00	0·32	13·57	5·78	0·85
July ...	29·250	29·180	85·8	86·9	75·1	78·0	14·40	13·70	19·01	9·16	11·85	11·34
August ...	29·332	29·328	84·9	84·8	75·7	79·0	14·75	8·60	11·17	27·43	17·31	4·92
September ...	29·422	29·422	84·4	84·5	73·9	76·0	13·51	4·08	4·96	8·37	8·25	5·85
October ...	29·604	29·641	79·4	76·1	53·4	64·0	...	...	...	3·91	0·08	1·72
November ...	29·742	29·704	70·1	68·5	47·3	46·0	...	...	...	...	...	...
December ...	29·800	29·820	63·0	60·5	50·8	46·0	1·25	...	...	0·05	...	...
						Total fall ...	55·14	33·73	36·09	62·88	44·82	24·76

TABLE VI.

Statement of rainfall recorded at the 235 *rain-gauge stations of the North-Western Provinces and Oudh during the year* 1876.

Districts (north to south).	Number of rain-gauge stations.	Greatest fall at any station.	Least fall at any station.	Average of all stations.	Distribution.		
					January to May.	June to September.	October to December.
		Inch.	Inch.	Inch.	Inch.	Inch.	Inch.
1. Kumaun ...	6	68·6	38·4	50·0	7·3	40·6	2·1
2. Garhwál ...	2	38·7	24·3	31·5	6·8	22·4	2·3
3. Tarai	3	38·3	24·5	29·4	1·7	26·0	1·7
4. Dehra Dun ...	4	96·4	64·7	81·8	8·0	70·6	3·2
5. Bijnor	5	49·7	29·6	38·4	3·0	33·4	2·0
6. Saháranpur ...	4	43·9	29·3	36·3	2·9	30·9	2·5
7. Moradabad ...	6	34·2	18·0	24·9	2·3	21·9	0·7
8. Muzaffarnagar ...	4	30·7	21·5	24·7	3·2	19·5	2·0
9. Meerut ...	6	22·3	16·1	18·6	2·5	15·3	0·8
10. Bareilly ...	10	41·4	18·8	29·3	1·3	26·7	1·3
11. Sháhjahánpur ...	4	32·5	20·3	25·7	1·5	22·9	1·3
12. Budaun ...	5	23·3	18·0	21·3	0·9	19·4	1·0
13. Bulandshahr ...	5	22·8	12·4	18·5	0·8	16·9	0·8
14. Aligarh ...	6	26·6	15·8	20·3	0·9	18·3	1·1
15. Muttra ...	6	22·0	16·0	20·2	0·8	18·3	1·1
16. Etah ...	3	33·1	18·0	25·6	0·5	23·7	1·4
17. Mainpuri ...	5	42·1	26·4	33·5	0·5	31·6	1·4
18. Agra ...	10	31·5	16·0	22·1	0·3	21·1	0·7
19. Farukhabad ...	6	31·8	21·1	27·3	0·7	25·2	1·4
20. Etáwah ...	5	33·0	20·4	27·2	0·4	26·2	0·6
21. Kheri ...	3	42·6	34·1	40·3	1·2	37·3	1·8
22. Hardoi ...	4	37·4	26·8	30·7	1·2	28·5	1·0
23. Sitapur ...	4	44·5	31·0	37·1	1·0	33·9	2·2
24. Bahraich ...	3	38·7	30·3	34·4	1·3	29·5	3·6
25. Gonda ...	3	34·8	26·4	29·3	1·5	24·6	3·2
26. Lucknow ...	3	25·9	19·4	22·6	0·8	20·7	1·1
27. Bara Banki ...	4	30·8	19·7	25·3	1·1	22·6	1·6
28. Fyzabad ...	4	26·3	18·9	22·9	0·8	17·9	4·2
29. Unao ...	4	24·5	18·5	20·8	0·4	19·8	0·6
30. Cawnpore ...	9	35·9	20·1	27·1	0·3	26·6	0·5
31. Hamírpur ...	6	37·8	27·8	32·2	0·2	31·7	0·3
32. Fatehpur ...	6	33·4	26·0	29·7	0·1	28·5	1·1
33. Bánda ...	8	49·6	27·5	38·5	0·1	37·2	1·2
34. Rae Bareli ...	4	29·5	20·5	24·3	0·1	22·0	2·2
35. Sultanpur ...	4	34·4	22·6	29·4	0·7	25·2	3·5
36. Partabgarh ...	3	29·9	26·1	27·6	0·1	24·7	2·8
37. Allahabad ...	9	37·4	25·1	31·0	...	27·3	3·7
38. Basti ...	5	46·4	26·7	39·0	1·9	34·0	3·1
39. Gorakhpur ...	6	50·8	30·2	39·8	3·0	32·8	4·0
40. Jaunpur ...	5	43·9	29·1	33·8	...	27·8	6·0
41. Azamgarh ...	6	42·0	22·2	30·6	0·6	26·2	3·8
42. Mirzapur ...	5	57·4	36·2	44·5	...	42·5	2·0
43. Benares ...	3	37·8	25·8	32·8	...	30·9	1·9
44. Gházipur ...	6	41·5	26·6	33·3	0·4	28·4	4·5
45. Jalaun ...	5	37·2	21·0	30·4	0·2	30·1	0·1
46. Jhánsi ...	4	59·5	33·3	43·4	0·3	42·8	0·3
47. Lalitpur ...	4	48·0	43·1	45·7	0·1	45·5	0·1

4. Having recorded, as perfectly as can be, the meteorological phenomena, it will now be necessary to determine the populations affected by the climatic conditions disclosed.

The *Roorkee* record may be accepted as describing without any question of doubt the climate of the Saháranpur, Bijnor, Muzaffarnagar, and Meerut districts,—population 3,584,930.

The *Bareilly* record, the climate of the Moradabad, Bareilly, Sháhjahánpur, and Budaun districts,—population 4,411,751.

The *Agra* record, the climate of the Muttra, Aligarh, Agra, Etah, and Mainpuri districts,—population 4,523,915.

The *Lucknow* record, the climate of the Sitapur, Hardoi, Bara Banki, Lucknow, Unao, and Rae Bareli districts,—population 5,084,129.

The *Benares* record, the climate of the Jaunpur, Azamgarh, Benares, Mirzapur, and Gházipur districts,—population 5,711,663.

5. With regard to *atmospheric pressure*, the one noticeable feature of the records is that whereas the rule of averages shows that the lowest pressure usually occurs during the month of June, it was not recorded anywhere until the month of July in 1876. With regard to the *temperature of the air*, the chief peculiarity is its excessive temperature during the months of June and July. With regard to the *humidity of the air*, its excessive dryness during May and June. With regard to *rainfall*, its extreme scantiness during June, and so serious failing for the year as may be represented by the figures 42·39, average fall of the years 1871—76, and 28·88 the fall of 1876.

6. The abovementioned facts fairly describe the peculiar climatic conditions of the province as a whole during the year 1876, and the mortality of the year is thus recorded :—

1876.

Population.	*Deaths registered from*					
	Cholera.	Small-pox.	Fevers.	Bowel complaints.	All other causes.	Total deaths.
42,724,741 ...	48,311	40,730	658,230	96,217	94,002	937,490
Ratio per 1,000 ...	1·12	0·95	15·40	2·25	2·20	21·94

In this statement I include the Oudh province, which is represented in the meteorological records.

The ratio of mortality recorded in the Oudh province for the year was 18·21 per 1,000 of population. In the North-West Provinces it was 23·39, the highest ratio recorded since mortuary registration was commenced, and witnessing to the fact that 1876 was a year unfavourable to life.

7. If this unfavourable result was due in any measure to the meteorological peculiarities of the year, the excessive mortality should have occurred in the months of May, June, and July, when the unusual climatic phenomena were observed, namely, prolonged light pressure, excessive temperature, and unusual dryness of the atmosphere, with an almost total absence of rainfall until July was well advanced. The following concise statement will show that the mortality was excessive during the months in question :—

Deaths registered in the North-Western Provinces.

May.		*June.*		*July.*		Total.	
Mean of 1872-75.	1876.	Mean of 1872-75.	1876.	Mean of 1872-75.	1876.	Mean of 1872-75.	1876.
60,273	63,938	55,564	68,166	47,394	54,885	163,234	186,989

The statement shows an excess of 23,755 deaths above the average of the previous four years, which may be very properly attributed in great measure to the unfavourable climatic conditions of these months.

8. The result upon health of a year of delayed rainfall, and consequent excessive heat in May, June, and July, may be best exemplified by a comparison of the registered mortality of those months in years of extreme difference in regard to this peculiarity. In this respect the year 1872 differed entirely from the year 1876, and the result is thus recorded, as regards the *Bareilly* meteorological circle in which the difference was marked :—

Registered mortality in May, June, and July, 1872 and 1876.

District.	Deaths registered.											
	Cholera.		Small-pox.		Fevers.		Bowel complaints.		All other causes.		Total.	
	1872.	1876.	1872.	1876.	1872.	1876.	1872.	1876.	1872.	1876.	1872.	1876.
Moradabad	44	32	741	3,099	2,890	3,857	1,035	1,306	571	1,097	5,271	9,382
Bareilly	46	434	1,502	1,949	3,632	6,078	377	937	440	443	5,997	9,691
Shâhjahân-pur	87	...	1,750	801	2,946	4,656	1,154	1,156	1,302	860	7,239	7,473
Budaun	31	9	747	1,627	1,681	3,857	378	1,227	634	824	3,471	7,144
Total	208	475	4,740	7,476	11,149	17,948	2,944	4,626	2,947	3,224	21,978	33,690

The population of the circle is 4,411,751. It follows as the result of the figures of the table that, whereas in 1872, a year of early established rains, the mortality of the three months was in the ratio of 4·98 per 1,000 of the population, in 1876, a year of greatly delayed rains, the ratio was 7·64 per 1,000.

9. The distribution of the rainfall in any year is probably the meteorological fact of most importance as regards influence upon the public health. I think this may be illustrated by the facts disclosed during 1876 in reference to the districts of Jalaun, Jhánsi, and Lalitpur, which together form a separate country south of the Jumna.

By reference to table No. VI. it may be seen that the total rainfall in that country was much above the average. This large rainfall occurred almost entirely during the months of July, August, and September, the result being intense and prolonged heat in May and June, followed by excessive moisture in July, August, and September, with a return of heat in October and November. The result upon health of a year thus noticeable appears by the mortuary statements of those districts to have been very unfavourable. The average ratio per 1,000 of mortality recorded in these districts during 1876 being 30·85, the mean of the past seven years being 23·73.

10. *The general condition of the people,* as regards the necessaries of life during 1876, may be learnt from the following table :—

TABLE VII.

Average price of common food articles during the past seven years, in June and December, when the crops of the year have been gathered.

Food articles.	Average quantity in seers sold for one rupee throughout the province.													
	1870.		1871.		1872.		1873.		1874.		1875.		1876.	
	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.	June.	December.
Wheat ...	16	20½	26	21½	19¼	18	16¾	15½	17¾	19½	22½	24½	24¾	22¼
Barley ...	22	27	36	28	28½	24	22	19¾	22¼	25¾	31	32	33¾	28¾
Juar ...	20¾	29½	26¼	23¾	13¼	19¾	20¼	21½	17¼	22¾	24	35½	*25½	*32¼
Arhar ...	15¼	16	25¾	20¾	18½	18¼	17¾	15½	13¾	13¼	18½	20	25	24¼
Gram ...	...	...	...	...	...	...	...	...	20½	24	27	29½	32½	30

11. The figures of the table witness to the fact that the year 1876 was a year of average plenty; and although in regard to wheat, barley, and juar the price was higher than in 1875, the price of arhar and gram was lower.

This may appear to be an unexpected result in a year of lessened rainfall, but in fact the welfare of the crops does not depend so much upon the great quantity of rainfall as upon the time at which it falls.

By reference to table VI. of this section it may be seen that a certain amount of rain is recorded to have fallen in nearly all the districts during the early months of the year, from January to May. In fact the rainfall recorded then, which in quantity

* Average of 21 districts only.

appears insignificant, occurred in greatest portion during March to the great improvement, if not salvation, of the grain crops on unirrigated land. The excessive rainfall of 1875, too, had been carefully stored in the many water-holes or excavations which stud the land, and this had been utilized everywhere for the preservation of the crops until the seasonable rainfall of March occurred.

This March rainfall was especially serviceable to the gram crop, hence the comparative cheapness of gram during the past year.

The cheapness of arhar, the important pulse, which as an article of diet takes the place of meat amongst the great Hindu population, was due to the fact that comparatively little of the arhar crop of 1875-76 was killed by frost, as mentioned in para. *73* of my report for last year.

12. This condition of average plenty was pretty evenly distributed over the province, as the following table shows :—

Statement showing the price of grain in each district in the months of June and December, 1871.

		June 30th.								December 31st.								Average of divisions.			
		Wheat.		Barley.		Gram.		Arhar.		Wheat.		Barley.		Gram.		Arhar.					
		s.	c.	m.	s. c.	m.	s. c.	s.	c.	s.	c.	m.	s. c.	m.	s. c.	m.	s. c.				
																		Kumaun.			
																			June		Dec.
																			s.	c.	s. c.
1	Kumaun ...	16	0	0	19	0	0	17	0	12	10	14	0	0	18	0	0	16	0	0	14 0
2	Garhwál ...	17	8	0	22	0	0	10	0	10	0	17	8	0	22	0	0	10	0	0	9 0
3	Tarái ...	24	12	1	0	0	0	26	4	22	8	22	8	0	25	0	0	26	9	0	23 12
																		Wheat	19	1½	19 0
																		Barley	27	0	21 10
																		Gram	17	0	17 8
																		Arhar	14	13	15 9
																		Rohilkhand.			
4	Bijnor ...	20	13	0	29	4	0	23	10	22	8	21	6	0	27	10	0	28	11	0	20 4
5	Moradabad ...	24	4	0	36	4	0	30	10	26	8	24	6	0	35	0	0	33	2	0	28 2
6	Bareilly ...	23	2	0	32	8	0	28	12	22	8	20	0	0	30	0	0	28	7	0	25 0
7	Sháhjahán-pur.	27	2	1	0	8	0	33	8	24	12	23	13	0	39	8	0	32	0	0	23 12
8	Budaun ...	25	3	0	36	6½	0	32	7	26	6½	21	14	0	33	9½	0	30	0	0	27 0
																		Meerut.			
9	Dehra Dún...	20	0	0	34	0	0	25	0	18	0	21	0	0	26	0	0	28	0	0	19 0
10	Saháranpur	24	13	0	31	4	0	31	12	22	10	24	13	0	32	0	0	33	6	0	23 11
11	Muzaffarna-gar.	25	5	0	38	8	0	29	11	19	13	27	1	0	35	3	0	33	0	0	22 0
12	Meerut ...	26	8	1	0	0	0	34	0	28	0	26	0	0	36	0	0	35	0	0	28 0
13	Bulandshahr	27	8	0	38	0	0	38	0	32	0	26	0	1	0	0	1	1	0	0	29 0
14	Aligarh ...	28	0	0	35	0	0	37	0	29	0	26	8	0	36	0	0	37	0	0	30 0
																		Agra.			
15	Etah ...	28	8	0	36	4	0	33	0	30	0	26	0	0	34	0	0	31	8	0	28 0
16	Muttra ...	25	8	0	32	0	0	30	8	21	0	25	0	0	35	8	0	36	0	0	30 0
17	Farukhabad	27	2	0	36	4	0	31	10	26	2	22	8	0	37	8	0	31	4	0	25 0
18	Mainpuri ...	28	4	0	35	0	0	35	8	33	8	23	0	0	31	8	0	29	0	0	30 0
19	Agra ...	24	9½	0	32	6½	0	31	14½	28	0	23	0½	0	34	0	0	33	0½	0	27 0
20	Etáwah ...	26	0	0	35	0	0	33	8	31	8	22	0	0	33	0	0	30	0	0	26 8
																		Allahabad.			
21	Cawnpore ...	25	0	0	37	0	0	35	0	29	0	20	0	0	38	0	0	28	0	0	23 0
22	Fatehpur ...	27	8	0	37	8	0	39	8	30	8	22	8	0	35	0	0	31	0	0	25 0
23	Jaunpur ...	25	6	0	32	7	0	37	6	28	4	22	9	0	31	1	0	29	10	0	25 6
24	Hamírpur ...	27	8	0	29	12	0	38	0	29	0	28	3	0	28	2	0	33	8	0	30 15
25	Bánda ...	25	8	0	30	0	0	37	0	28	0	24	12	0	31	8	0	37	8	0	28 0
26	Allahabad ...	24	8	0	31	0	0	36	4	24	15	19	14	0	33	0	0	29	8	0	24 0
																		Benares.			
27	Gorakhpur...	26	4	0	38	8	1	4	0	30	0	21	0	0	28	0	0	28	0	0	22 8
28	Basti ...	26	14	1	0	0	1	0	0	25	0	23	12	0	35	0	0	30	10	0	26 4
29	Azamgarh ...	24	6	0	31	0	0	33	15	25	1	20	10	0	26	9	0	29	8	0	24 6
30	Gházipur ...	20	9½	0	27	0	0	36	1	20	9½	21	4	0	27	0½	0	24	7½	0	23 3
31	Benares ...	21	8	0	30	7	0	31	8½	21	12	19	9	0	28	4	0	23	15½	0	21 12
32	Mirzapur ...	22	0	0	28	0	0	30	0	22	0	19	0	0	26	0	0	26	0	0	22 0
																		Jhánsi.			
33	Jalaun ...	30	0	0	37	0	1	0	0	32	0	28	0	0	32	0	0	36	0	0	26 0
34	Jhánsi ...	24	8	0	36	9	0	31	4	21	0	23	5	0	32	8	0	31	12	0	20 0
35	Lalitpur ...	25	8	0	37	8	0	33	8	15	0	24	10	0	32	0	0	29	8	0	26 0
																		Wheat	26	10½	25 5
																		Barley	37	1	32 2½
																		Gram	34	14½	32 6½
																		Arhar	22	10½	24 0

The greatest difference in regard to price as compared with 1875 occurred in Gorakhpur and Basti, especially as concerns barley, the staple food of the poor. But 1875 was a year of extraordinary plenty in the country beyond the Gogra, and the price there during 1876 was quite within the general average.

SECTION II.

JAILS.

13. This section, referring to the sanitary condition of the jails, appears in my annual report for the first time this year under the orders previously quoted; and the information the section contains is derived from the annual reports of the Inspector-General of Prisons. During the year 1876 the mortality in the jails was in the ratio of 25·0 per 1,000 of daily strength of prisoners, as shown by the following statement:—

Statement of mortality in the jails of the North-Western Provinces for 1876.

Daily average strength.		Deaths registered from												
		Cholera.	Small-pox.	Fever.	Dysentry and diarrhœa.	Scrofula and phthisis.	Anæmia and debility.	Respiratory diseases.	All other causes.	Total.		Ratio per 1,000 of strength.		
M.	F.									M.	F.	M.	F.	Total
21,302	1,068	1	...	70	200	30	55	95	110	526	33	24·7	30·1	25·0
	Ratio,	0·04	...	3·1	8·9	1·3	2·4	4·2	4·9					

14. The ratio of deaths per 1,000 of the past seven years appears in the following statement:—

Ratio of deaths per 1,000 *of strength of prisoners during the past seven years.*

1870.	1871.	1872.	1873.	1874.	1875.	1876.
49·1	41·5	44·3	45·6	41·4	27·1	25·0

By comparison with the mortality of previous years, the mortality amongst the prisoners during 1876 is seen to have been below the average, the figures witnessing to an improved sanitary condition of the prisoners during that year.

This favourable result, as regards the total number of persons imprisoned, is, however, not equally distributed over the populations of the 39 jails of the province, for in six jails, with an average strength of 26·15, the ratio was 81·0 per 1,000.

These six jails are—

		Ratio.
1.	Meerut central prison	100·5
2.	Ditto district jail	68·8
3.	Sháhjahánpur jail	56·5
4.	Bánda jail	69·1
5.	Hamírpur jail	54·2
6.	Mirzapur jail	64·6

15. In regard to these six jails of apparently unfavourable sanitary condition during 1876, it seems necessary to enquire as to how much of this unfavourable result is probably due to insanitary conditions affecting the prisoners, and how much to what may, for the sake of distinction, be called accidental causes. For it must be remembered that the average daily strength of prisoners by no means expresses the number of lives included in a jail population for the year. In illustration of this point I may say that the total daily strength of prisoners—22,370 for 1876—embraced a total of 101,659 lives for longer or shorter periods during the year. It is certain that some of these lives were so bad at the time of imprisonment that they would have terminated under any circumstances within the period of imprisonment. The termination of such lives, if admitted to any jail in unusual numbers in any year, witness nothing as against the sanitary state of the jail or sanitary condition of the prisoners.

16. Perhaps the best method of arriving at a just conclusion in regard to this question is by a careful consideration of the ratios of mortality for a series of years, and the following is the record for the past seven years as concerns the jails of unfavourable death ratio in 1876 :—

Ratios of deaths per 1,000 *of daily strength.*

Jails.	1870.	1871.	1872.	1873.	1874.	1875.	1876
Meerut central	102·3	157·3	121·3	76·7	128·3	54·0	100·5
Ditto district	110·7	99·0	126·7	103·5	55·9	51·0	68·8
Sháhjahánpur	26·0	14·4	30·8	87·7	39·8	21·2	56·5
Bánda	78·7	60·5	71·2	106·3	60·4	81·2	69·1
Hamírpur	46·5	71·8	29·3	25·7	48·3	45·7	54·2
Mirzapur	58·1	47·2	55·3	81·4	33·1	25·2	64·6

From the statement it appears that a persistent high ratio of mortality has ruled in the Meerut central prison, Meerut district jail, and the Bánda jail. At Hamírpur and Mirzapur the ratio has been high for five years out of seven. At Sháhjahánpur the ratio has been high for two years only out of seven, which may be due to accidental causes.

17. With regard to the three prisons first mentioned, I think there cannot be any reasonable doubt that the conditions under which the prisoners live therein must be unfavourable to life, and I gather from the remarks in his annual report that the Inspector-General of Prisons is of that opinion.

18. The most unfavourable results appear in the Meerut prisons, the average ratio of seven years in the Meerut central prison being 105·8 per 1,000, in the Meerut district jail 87·9 per 1,000. The figures witnessing to the fact, for anxious consideration, that the deaths have been sufficiently numerous to equal in a little more than ten years the average Meerut jail strength.

I know that this unfavourable result has been prominently noticed for some years past, and strenuous efforts made to better the sanitary condition of the prisoners at Meerut. The success has been partial. Recently, I understand, a committee has been appointed to investigate the causes of the sickness in the two Meerut jails, and it may be hoped that their recommendations will result in effecting the necessary change.

I fear an undoubted cause of sickness, namely, the gradual rise in the spring level of the jail sites, which has been going on since the Ganges Canal was brought into operation, will not admit of remedy.

19. At Bánda the unfavourable results during the past year are considered to have been due to overcrowding in the Kirwi lock-up, a place of temporary confinement of prisoners afterwards admitted to the Bánda jail, and to the management of the jail, which the Inspector-General cannot approve. A project has been submitted for the extension of the lock-up, and the management of the jail has been entrusted to the Magistrate. With the application of these necessary remedies better results are looked for.

I should add that the ratios of the past seven years do not witness to any temporary cause of sickness easy of removal.

20. In proof of the generally admirable sanitary condition of the prisons of this province, it is right to state that in the 33 jails not previously mentioned the average ratio of mortality in 1876 was only 17·0 per 1,000 of average strength—a most satisfactory result, taking into consideration the peculiarity of jail average strength as before described. And I gladly take this opportunity of testifying, as Sanitary Commissioner of the province, to the extraordinary solicitude displayed for the bodily welfare of the prisoners in every jail. The jails from frequent visitation are perhaps better known to me than any other establishments or centres of population in the province, and I believe their sanitary condition is at all times admirable.

For the perfect management in this respect, which I often gladly witness, the credit belongs entirely to the Inspector-General and the superintendents of the jails, who are almost, without exception, sanitarians by profession. The means being adequate, the results are perfect.

21. If, as unfortunately happens, there are exceptions to the rule, I think it very likely that some inherent defect in the jail site or jail buildings, beyond the reach of ordinary sanitary endeavour, may be the exceptional cause.

22. A further proof of sanitary improvement during the past year is afforded by the results as regards the Bareilly and Gorakhpur prisons. The ratios of mortality in these two establishments have in past years been exceedingly high, as appears below :—

Ratio of deaths per 1,000 *of daily strength.*

Jails.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Bareilly central prison	61·9	56·9	55·5	87·2	49·2	58·4	20·3
Gorakhpur jail	100·1	78·3	137·7	75·1	201·4	53·5	31·5

The favourable result for 1876 witnesses emphatically to an improved sanitary management and condition of the prisoners of these important jails for that year; a most desirable change, which will, it may be hoped, be permanent.

SECTION III.

GENERAL POPULATION.

Vital Statistics.

Table of mortality for the twelve years 1865 *to* 1876.

Year.	Population.	Deaths.			Deaths in 1,000 living.	Average of life in living.
		Male.	Female.	Total.		
1865	29,405,322	335,359	239,774	575,133	19·5	51
1866		193,144	136,932	330,076	11·2	89
1867		212,461	155,449	367,910	12·5	80
1868	29,588,653	186,312	133,574	319,886	10·8	92
1869		303,921	225,832	529,753	17·9	56
1870		...	...	480,378	16·2	63
1871		322,357	256,293	578,650	19·5	51
1872	30,884,022	393,564	309,684	703,248	22.7	44
1873		394,376	310,548	704,924	22·9	43
1874	30,769,056	371,270	300,989	672,259	21·8	45
1875		373,582	297,909	671,491	21·8	45
1876		397,758	321,998	719,756	23·3	42

23. During the year 1876 mortuary registration continued to be effected by the agency of the police upon the system established in 1870; the only expense attending the registration being the cost of the necessary printed forms, which have been admirably executed and regularly supplied by the Superintendent of the Government Press, to whom I am much indebted for essential aid as regards this matter, in this as in former years.

24. As will appear further on in this report, I have had little opportunity for the inspection of mortuary registers during the past year, my time and attention during all the period of the year when inspection work can be safely effected having been taken up by work which took me far away from police offices. But I have no reason to think that the registration has not been effected correctly; that is to say, the registration of all the deaths reported at the police stations. Indeed, judging by the calls for the supply of new registers, I have reason to think that the registration has been more complete during the past than in any former year.

25. The total number of deaths registered during 1876 was 719,756 amongst a population of 30,769,056. The resulting value of life, as computable from these figures, is 42·7 years—an unsatisfactory result as compared with the ascertained value of life in Europe, namely, about 35 years; yet a nearer approach to the truth in regard to this matter than has yet been attained in any year, and witnessing to a gradual improvement in the mortuary registration, which is encouraging.

26. During the past year in nine districts—Tarái, Bijnor, Moradabad, Sháhjahánpur, Budaun, Hamírpur, Mirzapur, Jhánsi, and Lalitpur, with a total population of 6,003,542—the total of deaths registered was 186,871, showing an average life value of about 32 years amongst the people of those districts.

27. In nineteen districts—Kumaun, Garhwál, Bareilly, Dehra Dún, Saháranpur, Muzaffarnagar, Bulandshahr, Aligarh, Etah, Muttra, Farukhabad, Etáwah, Cawnpore, Fatehpur, Bánda, Gorakhpur, Gházipur, Benares, and Jalaun, with a total population of 16,049,340—the total of deaths registered was 379,224, showing an average life value of about 42 years amongst the people of those districts.

28. In five districts—Mainpuri, Agra, Allahabad, Basti, and Azamgarh, with a total population of 6,416,391—the total of deaths registered was 118,203, showing a life value of about 54 years amongst the people of those districts.

29. In two districts—Meerut and Jaunpur, with a total population of 2,299,783 —the total of deaths registered was 35,458, showing a life value of about 65 years amongst the people of those districts.

30. From these statements it appears that mortuary registration was neglected in five districts, and very much neglected in two districts during 1876. In 1875 it was neglected in 16 districts, and very much neglected in two districts. These two were Allahabad and Basti, and the prominent statement of that great neglect given in my report for that year has apparently resulted in some improvement during the past year, yet still only to the partial extent of bringing these districts within the class of those in which registration was neglected.

31. In regard to Meerut registration during 1876, I should say that in all previous years of mortuary registration this district has been noted for the good results obtained. That the mortality has decreased in this district is certain, because of the former undue prevalence of fatal fever disease, which has been decreasing during the past three years, and had probably fallen below the normal ratio in 1876. But it cannot, I think, be possible that in any year, or under any circumstances, the mortality amongst a population of 1,273,914 can fall so low as to show a life value of 64 years. That such result has been due to great neglect of registration in certain portions of the district is plainly shown by a careful consideration of the returns available.

In the 11 town circles of the Meerut district the ratio of mortality recorded during 1876 was 29·6 per 1,000 of population. Of the 29 rural circles, the average ratio for 12 was 20·1; in the remaining 17 the ratio was 10·8.

The facts as regards these 17 circles appear in the following list:—

Meerut district.

	Rural circles.	Population.	Deaths in 1876.	Ratio per 1,000.	Remarks.
1	Baraut	34,882	1,049	12·3	
2	Dâha	34,197	457	13·3	
3	Birauli	30,800	439	13·9	
4	Sardhana	69,932	614	8·0	
5	Daurala	43,689	385	8·8	
6	Mawâna	50,479	505	10·0	
7	Bâgpat	44,196	447	10·1	
8	Khekará	39,389	457	11·6	
9	Balaina	33,534	439	13·1	
10	Jâni	83,973	948	11·3	
11	Kamaruddinnagar	9,613	117	12·2	
12	Muradnagar	43,710	519	11·9	
13	Pilkhua	26,478	161	6·1	
14	Dhaulâna	43,547	208	4·7	
15	Kharkauda	38,896	480	12·3	
16	Hápur	66,334	838	12·6	
17	Kithor	32,699	311	9·5	
	Total ...	776,298	8,374	10·8	

32. In regard to Jaunpur, I should say that in this district mortuary registration has been neglected in all years since the registration commenced. During 1876 in the town circles the ratio of mortality was 28·8 per 1,000. Of the 17 rural circles, in eight the average ratio was 21·0 per 1,000; in the remaining nine the ratio was 12·8. These nine circles were:—

Jaunpur district.

	Rural circles.	Population.	Deaths in 1876.	Ratio per 1,000.	Remarks.
1.	Sarai Mahi-uddin	67,056	755	11·2	
2.	Kutahan	50,107	544	10·8	
3.	Badlapur	61,654	833	13·5	
4.	Khojeh Sarai	47,903	674	14·7	
5	Bakshá	60,940	754	12·4	
6.	Sujánganj	79,716	1,056	14·9	
7.	Jaunpur	90,168	1,123	12·4	
8.	Kirákat	65,200	727	11·2	
9.	Chandwak	41,690	697	15·6	
	Total ...	565,744	7,163	12·8	

33. Concerning the five districts mentioned in para. 28, the inaccuracy which taints the total result was due to neglect of registration in 38 circles, of which the following is a list:—

District.	Rural circle.	Population.	Deaths in 1876.	Ratio per 1,000.	Remarks.
MAINPURI ...	Bhongaon	63,760	968	15·2	
	Kishni	54,541	890	16·3	
	Sirsaganj	72,811	1,208	16·6	
	Runkuta	22,279	318	14·2	
	Khandauli	30,561	329	10·6	
	Itimadpur	62,627	769	12·2	
	Haripurbat	20,875	166	7·8	
	Tajganj	29,686	359	12·6	
	Dohki	25,823	348	14·2	
AGRA ...	Fatehpur Sikri ...	36,097	525	14·4	
	Kiranli	29,502	436	14·7	
	Kagrol	30,165	430	13·9	
	Osra	16,954	243	14·3	
	Siyan	30,154	430	13·9	
	Irradatnagar ...	28,255	263	9·2	
	Pináhat	35,206	523	14·4	
	Ava	32,297	412	12·7	
	Saini	64,150	868	13·5	
	Soraon	65,769	692	10·5	
	Muradganj	36,920	422	11·4	
ALLAHABAD ...	Kurári	34,115	444	13·0	
	Jhúsi	32,154	459	14·2	
	Sarai-Akil	64,823	889	13·7	
	Mandah	33,927	480	14·1	
	Lotan	30,286	395	13·0	
BASTI ...	Bansi	81,927	1,100	13·4	
	Majhra	52,911	716	13·5	
	Basti	99,341	1,448	14·5	
	Atrauli	68,419	921	13·4	
	Doharighát	30,130	304	10·1	
	Ahraulaghat ...	68,075	968	14·2	
	Sagari	73,504	959	13·0	
AZAMGARH ...	Sarai-Mir	49,741	709	14·3	
	Dedarganj	67,652	923	13·6	
	Mau	69,425	932	13·5	
	Chiriakot	67,329	1,102	14·9	
	Khandarapur ...	47,616	581	12·2	
	Jahánáganj	57,570	596	10·4	

34. From the three preceding lists it may be learnt that in 64 circles in all the mortuary registration was seriously neglected. This is not a very large number as compared with the total of circles, namely, 879, and yet the number was amply sufficient to vitiate the total results for the province.

I have prepared the lists and given them prominent place here in the expectation that the Collectors of the districts mentioned may be able to take note of the circles in which registration is neglected and require its improvement.

35. I regret to have to add that certain circles in the list of this year also appeared in the list of last year. These are—in Allahabad, the Saini, Soraon, Muratganj, and Jhusi circles; in Basti, the Lotan and Bansi circles; in Azamgarh, the Doharighát, Ahraulaghát, Sagari, Mau, Khandarapur, and Jahánaganj circles. I trust the neglect of registration will not be allowed to become chronic in these circles.

36. In para. 25 I have mentioned that the result of the registration for 1876 shows an expectation of life of 42·7 years for the whole province. Comparing the results of registration in the town and rural circles, we arrive at the conclusion that the value of life cannot be so great.

During 1876, in the 813 rural circles, with a population of 28,605,214, the total of deaths registered was 649,476, giving a ratio of 22·70 per 1,000, and showing an expectation of life of 44 years.

In the 66 town circles (towns of more than 10,000 inhabitants), with a population of 2,163,842, the total of deaths registered was 70,280, giving a ratio of 32·47 per 1,000, and showing an expectation of life of 30·8 years.

This great difference cannot be due entirely to the better life of the countryman, but is due in greatest measure to the careful registration in the towns, as compared with the neglected registration in the rural circles.

This arises, I think, not from any disinclination of the country people to register the deaths, but because of the difficulty there is in effecting the registration at one place in the very wide areas of many of the rural circles, the area of police circle of administration being too large for the area of mortuary registration.

I referred to this subject in my last report, and I desire this year to repeat that it is not likely the registration will be well effected so long as the rural circle contains an average of 110 villages, with, in some districts, the excessive number of 314, 250, 236, and 132 villages.

37. The relative amount of success as yet achieved in regard to mortuary registration in the several provinces of India appears in the following table :—

Death ratios per 1,000 *of population.*

	1875.			1876.			Remarks.
	Rural circles.	Town circles.	Total.	Rural circles.	Town circles.	Total.	
Bombay	28·63	19·37	23.15				
Madras	20·50	30·72	21·10				
Panjab	23·72	40·52	25·57				
Central Provinces ...	26·29	26·72	26·33				
Oudh	16·15	18·05	16·25	17·56	29·27	18·21	
British Burmah ...	13·16	21·21	14·08				
Bengal	No returns available.						
North-Western Provinces	21·07	31·70	21·82	22·70	32·47	23·39	

From the figures of the table it would appear that mortuary registration is as perfectly effected in the North-Western Provinces as in any other province. In nearly all provinces the results as regards registration in the rural circles seem to be unsatisfactory, whilst as regards town circles a very near approach to correctness seems to be obtained. The average ratio of all town circles for 1875 is 28·37, showing a life value of 36 years—a result probably not far from the truth in this matter.

Notwithstanding this partial success, I do not think it would be well to relinquish the registration in the rural circles, or to do anything tending to discourage or throw back the business of mortuary registration. Incorrect registration is better than no registration at all, for two reasons at least : it suffices to show where mortality from any special cause prevailed, and it keeps alive the custom of reporting deaths until such time as it may be possible to effect a correct registration.

Class of those who died.

38. The following table shows the deaths and ratios recorded during the past year as having happened amongst Hindus, Muhammadans, and Native Christians :—

Class.	Population in 1872.	Deaths registered.	Deaths to 1,000 living.	Value of life in years.
Hindus	26,569,068	616,401	23·19	43·1
Muhammadans	4,189,348	103,131	24·61	40·0
Native Christians	10,640	224	21·05	47·5

The figures witness to a careful registration of the class of those reported to have died. It seems likely, however, that the deaths of Native Christians were not carefully reported. This is to be regretted. It is likely that Christian life, especially of

infants, is more valuable than Hindu or Muhammadan life, yet it is impossible that the average of Christian life can be 47 years. In so small a population it should not be difficult to arrive at correct results, which would be very useful as a reliable source of comparison.

Age of those who died.

39. The following table shows the deaths and ratios recorded during the past year at the different periods of life involved :—

Period of life.	*Population in* 1872.			*Deaths registered.*			*Deaths to* 1,000 *living.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Infants (less than 1 year) ...	734,787	679,338	1,414,125	101,593	84,521	186,114	138·26	124·41	131·61
Children (1 to 12) ...	4,350,923	3,970,931	8,321,854	91,753	69,862	161,615	21·08	17·59	18·31
Adults (12 to 40) ...	8,188,671	7,238,757	15,427,428	82,343	69,344	151,687	10·05	9·57	9·83
Old people (above 40).	2,628,482	2,472,658	5,101,140	122,069	98,271	220,340	46·44	39·74	43·19
Total ...	16,402,863	14,361,684	*30,764,547	397,758	321,998	719,756	24·24	22·42	23·39

The table for England and Wales published in my report of last year, page 7, was :—

Age.	Population.	Deaths recorded.	Ratio to 1,000 living
Under 1 year	686,372	125,868	183·3
From 1 to 15 years	7,541,807	113,015	14·9
From 15 to 40 years	7,916,487	82,849	10·4
Above 40 years	6,567,600	193,153	26·7
Total ...	22,712,266	514,879	22·6

A comparison of results shows that apparently in this province infantile mortality is not so great as in England and Wales. This may be due in great measure to the non-registration of many infants who die in the North-Western Provinces.

It is worthy of remark, however, that the registration shows a ratio of deaths of all lives up to 12 years of 33·9 per 1,000 against 29·0 per 1,000 of all lives up to 15 years in England and Wales.

The principal value of the comparison, however, arises from a consideration of the facts disclosed as regards lives above 40 years. In regard to people living at that age, it appears that the ratio is 289 per 1,000 of population in England and Wales against 165 per 1,000 in the North-Western Provinces. Considering this established difference of things, it becomes easier to believe that the ratio of mortality above the age of 40 years may well be 43·2 per 1,000 of its population in this province, although in England and Wales it is only 26·7 per 1,000.

As a fact, really aged persons are very rare in this province, old men comparatively uncommon ; and I believe the high ratio of mortality recorded amongst the population of more than 40 years of age is a correct index of the evil results, in advancing age, of the hard life which characterises the youth and manhood of the great mass of the population of this province.

* This total is less than the total of the population by 4,509, as details of age for that number of persons were omitted in the census returns.

The sex of those who died.

40. In 1876 the deaths of 397,758 males and 321,998 females were registered, being an excess of males over females of 75,760 ; an excess of male deaths was recorded at all ages as the following table shows :—

Period of life.	*Deaths registered in* 1876.			Excess ratio per 1,000 of all deaths.	Proportion.
	Male.	Female.	Excess male.		
Infants	101,593	84,521	17,072	...	More than 110 males to 100 females.
Boys and girls	91,753	69,862	21,891	...	
Adults	82,343	69,344	12,999	...	
Old people	122,069	98,271	23,798	...	
Total ...	397,758	321,998	75,760	105·2	

This preponderance of male deaths is the normal result of the registration in all years, and is probably a proof of careful registration of the sex of those reported to have died.

It is true that at first sight it seems difficult to reconcile the fact of a known preponderance of male life with a recorded excess of male deaths, but it seems pretty certain that the result is due to excess of male births.

During 1876 the excess of male over female births was 83·8 per 1,000 of all births registered in the municipalities. In other words, more than 108 boys were born to 100 girls. During 1875 the difference was 94·6 per 1,000 of all births.

And as the birth registration improves, there seems to be little room for doubt that boys are born in considerable excess of girls every year. For although I cannot think the birth registration is correct as regards the total number born, yet I do not see why the sex of those registered should be incorrectly stated, or why preference should be shown to the registration of one sex of the infants born over the other.

Registration in the Municipalities.

41. The results of birth and death registration for 1876 in the 81 municipal towns of the province appear in Form No. X. in the Appendix.

The total ratios, of 36·36 of births and 32·51 of deaths, per 1,000 of population are the most satisfactory yet arrived at in any year. Yet I fear, as compared with the England and Wales average records of 34·20 births and 22·40 deaths, this result does not witness to a careful registration.

And in regard to this matter it is necessary to ask, how the results can be satisfactory so long as the municipal authorities are satisfied to record a registration as follows :—

1.	At Almora,	birth ratio	18·91,	death ratio	50·18	7.	At Firozabad,	birth ratio	28·28, death ratio 32·27
2.	„ Bareilly,	„	38·25	„	42·45	8.	„ Cawnpore,	„	25·25 „ 32·27
3.	„ Philibhit,	„	28·95	„	41·01	9.	„ Banda,	„	19·18 „ 29·50
4.	„ Saháranpur,	„	32·00	„	36·90	10.	„ Benares,	„	18·51 „ 20·09
5.	„ Shamli,	„	40·43	„	53·44	11.	„ Mirzapur,	„	19·15 „ 29·92
6.	„ Brindaban,	„	31·47	„	35·32				

The combined population of these 11 flourishing municipalities is 603,445, and the registration provides a ratio of 24·4 births per 1,000 of population and 30·4 deaths. If it could be true that the candle of life was burning at both ends in that way, the existing cheerfulness would soon be turned to mourning.

But of course it cannot be true. If anything, the towns in question are becoming more populous as years pass, and doubtless many children are born therein whose births are not registered. The municipal bye-law requires the registration of all births, and should be obeyed.

42. Omitting the figures for Allahabad and Ballia, which are manifestly very incorrect, the ratio of deaths of the remaining 79 towns is 34·2 per 1,000 of population,

equivalent to a life value of about 29 years. Somewhat less than Mr. Plowden's estimate of 31 years.

In 11 of the municipalities the ratio of mortality recorded is very high as appears in the following table :—

1876.

Municipality.	Population.	Deaths from					Total.	Ratio per 1,000.
		Cholera.	Small pox.	Fever.	Bowel complaints.	All other causes.		
1. Almora	4,125	101	8	33	58	7	207	50·18
2. Bijnor	13,066	...	80	355	146	159	740	56·63
3. Dhampur	6,555	...	32	77	101	124	334	50·95
4. Nagina	19,696	...	154	177	544	113	988	50·16
5. Bisalpur	9,250	26	32	154	202	48	462	49·94
6. Tilhar	18,825	1	46	633	117	170	967	51·36
7. Shamli	9,300	2	19	342	128	6	497	53·44
8. Harduaganj	5,005	...	6	128	114	42	290	55·75
9. Fatehpur	19,054	55	4	533	5	330	927	48·62
10. Orai	5,158	...	...	226	41	39	306	59·32
11. Mau Ranipur ...	23,123	...	165	438	571	62	1,236	53·49
Total ...	133,167	185	546	3,096	2,027	1,100	6,954	52·22

The ratio provides a life-expectation of about 19 years. It is probable that in some of these towns deaths in outlying villages are included amongst the deaths in the municipality proper, which would of course affect the ratio, as the populations of the villages are not included in the statement of municipal populations. Yet it is worthy of notice that in nearly all these towns of excessive ratio the mortality from cholera or small-pox has been excessive. This accounts in great measure for the high death rate, and it is by no means certain that such death rates as the table shows may not, in some years, be actually experienced amongst a town population.

Registration in cantonments.

43. The results may be found in Form XI. of the Appendix. The ratio of deaths to population is 20·90 per 1,000; the resulting expectation of life amongst the population concerned being about 48 years, which cannot be true.

The registration, well effected in eleven cantonments, was so injured by neglect in the remaining ten as to entirely ruin the total results.

These 10 are—

No.	District.	Population.	Deaths.	Ratio.
1	Debra Dun	1,132	6	5·30
2	Naini Tal	445	7	15·73
3	Ranikhet	6,000	60	10·00
4	Almora	745	15	20·13
5	Agra	18,736	380	20·28
6	Muttra	4,132	78	18·87
7	Cawnpore	33,840	485	14·33
8	Allahabad	6,450	106	16·43
9	Jhánsi	4,162	61	14·65
10	Benares	5,403	93	17·21
	Total ...	80,945	1,291	15·94

If that could be the correct ratio of all years, then no person, infants included, of the population concerned need expect to die until 63 years of age.

In the eleven cantonments of careful registration the ratio was 29·16 per 1,000 of population, equivalent to a life-expectation of about 34 years, which is likely to be very near the truth.

44. During the year 1876 the district monthly mortality statements have been received in my office at Allahabad with a fair amount of punctuality, yet never in any month have all the statements been received early enough to permit of my obedience to the orders of Government, requiring the submission of the provincial

statement by the 15th of the month succeeding that to which it refers. This failure was due almost entirely to the late receipt of the statements from Banda, Allahabad, Aligarh, and Farukhabad.

I subjoin the facts for the information of the officers concerned, with an earnest request for the observance of punctuality as regards the last four districts on the list :—

Statement of date of receipt at Allahabad of the monthly mortuary statements during 1876.

District.	Average date for the 12 months.	District.	Average date for the 12 months.
Fatehpur	7th	Jalaun	14th
Bijnor	8th	Shâhjahânpur	15th
Moradabad	11th	Budaun	15th
Meerut	11th	Muzaffarnagar	15th
Etáwah	12th	Lalitpur	15th
Cawnpore	12th	Mirzapur	16th
Dehra Dún	13th	Jhânsi	16th
Bulandshahr	13th	Kumaun	17th
Etah	13th	Gharwâl	17th
Muttra	13th	Bareilly	17th
Mainpuri	13th	Agra	17th
Hamírpur	13th	Benares	18th
Azamgarh	13th	Jaunpur	18th
Ghâzipur	13th	Farukhabad	19th
Tarái	14th	Aligarh	20th
Sahâranpur	14th	Allahabad	22nd
Gorakhpur	14th	Bánda	24th
Basti	14th		

SECTION IV.

GENERAL HISTORY OF CHIEF DISEASES.

Statement of the chief causes of death in 1876.

Cholera.	Small-pox.	Fever.	Bowel complaints.	Injuries.	All other causes.	Total.
26,304	35,174	495,469	88,850	13,487	60,472	719,756
Ratios 0·85	1·14	16 10	2·88	0·43	1·96	23·39

CHOLERA.

45. The comparative prevalence of cholera disease in the North-Western Provinces during the past twelve years appears in the following table:—

Annual mortality from cholera in the N.-W. Provinces for the twelve years (1865 *to* 1876).

Population.	Year.	Deaths from cholera registered.	Ratio to 1,000 of population.	Population.	Year.	Deaths from cholera registered.	Ratio to 1,000 of population.
29,405,322	1865	76,322	2·53	29,588,653	1871	3,473	0·11
„	1866	8,175	0·27	30,884,022	1872	50,565	1·64
„	1867	57,837	1·95	30,769,056	1873	15,268	0·49
29,588,653	1868	20,680	0·61	„	1874	6,396	0·20
„	1869	90,770	3 06	„	1875	41,106	1·33
„	1870	13,123	0·44	„	1876	26,304	0·85

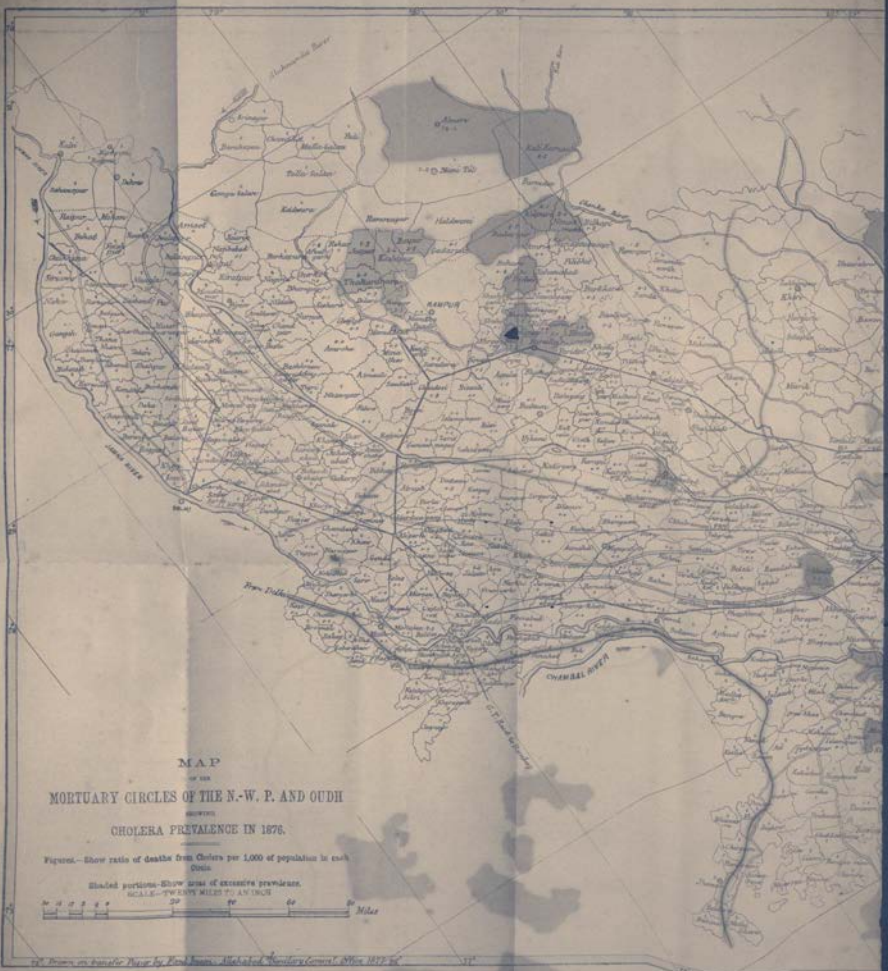
From the table it is seen that cholera did not prevail to any excessive extent during the past year, yet the prevalence was sufficiently marked to require as detailed general history of it as the records available will provide.

46. The prevalence in each district is recorded in the following table:—

Ratio of deaths from cholera per 1,000 *of population for the years* 1865—76.

Number.	District.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	Number.
1	Kumaun	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	4·8	0·0	0·0	1·8	1
2	Garhwál	0·0	0·0	0·0	0 0	0·0	0·0	0·0	0·0	0·0	0·0	1·8	0·0	2
3	Tarái	0·4	0·3	6·7	0 0	0·0	0·9	0·0	1·9	2·4	0·0	0·1	3·6	3
4	Bijnor	0·1	0·1	1·1	0·0	0·1	0·0	0·1	0·3	0·0	0·0	0 5	0·1	4
5	Moradabad	0·8	0·2	3·8	6·1	0·2	0·1	0·1	1·0	0·5	0·0	0·7	0·5	5
6	Bareilly	3·5	0·2	5·3	0·3	0·6	0·1	0·0	0·9	0·0	0·0	0·4	3·0	6
7	Sháhjahánpur	3·0	0·1	8·5	0·0	0·3	0·0	0·0	4·6	0·0	0·0	1·1	0·5	7
8	Budaun	0·6	0·1	0·8	0·1	1·3	0·0	0·1	0·0	0·4	0·0	1·8	0·1	8
9	Dehra Dún	0·0	0·0	8·6	0·0	0 0	0 0	0·0	2·1	0·0	0·0	3·1	0·0	9
10	Saháranpur	0·4	0·1	1·0	0·1	0·2	0·1	0·1	1·5	0·0	0·0	0·5	0·0	10
11	Muzaffarnagar	0·1	0·2	3·0	0·3	0·2	0·2	0·1	0·0	0·0	0·0	0·8	0 0	11
12	Meerut	0·7	0·5	3·4	0·2	0·4	0·0	0·0	0·4	0 0	0·0	1·2	0 0	12
13	Bulandshahr	0·2	0·1	0·2	0·1	0·2	0·0	0·0	0·4	0·0	0·0	2·5	0·0	13
14	Aligarh	0·1	0·0	1·2	0·1	0·4	0·0	0 0	0·7	0·3	0·0	2·2	0·0	14
15	Etah	0·4	0·1	2·0	0·0	0·4	0·0	0·0	0·4	0·3	0·0	2·6	0·0	15
16	Muttra	0·1	0·1	0·9	0·1	1·3	0·1	0·0	0·4	0·3	0 0	0·8	0·0	16
17	Farukhabad	1·9	0·2	0·6	0·1	0·0	0·0	0·0	2 7	0·0	0·0	2·5	0·3	17
18	Mainpuri	0·8	0·1	0·9	0·1	0·5	0·0	0·0	0·4	0·6	0·0	2·3	0·0	18
19	Agra	0·3	0·1	1·4	0·0	1·9	0·0	0·0	0·4	0·4	0·0	0 7	0·0	19
20	Etáwah	5·6	0·1	0·1	0·0	0·7	0·0	0·0	2·1	0·0	0 0	1·2	0·0	20
21	Cawnpore	1·3	0·1	1·5	0·0	2·4	0·9	0·1	1·3	0·1	0·0	1·0	0·8	21
22	Fatehpur	4·3	0 2	1·0	0·1	1·4	0·0	0·0	0·7	1·0	0·0	0·6	1·4	22
23	Jaunpur	1·3	0·2	0·2	0·8	2·8	0·6	0·4	3·0	0·5	0·0	1·4	0·8	23
24	Hamirpur	16·9	0·0	0·4	0·0	3·9	0·0	0 0	0·1	0·1	0·0	2·2	1·7	24
25	Bánda	3·7	0 0	3·5	0·0	1·9	0·1	0·0	0·2	1·1	0·0	1·6	1·0	25
26	Allahabad	3·0	0·2	0·3	0·4	2·1	0·1	0·1	2·6	0·6	0·0	0·9	1·4	26
27	Gorakhpur	2·8	0·1	2·5	2·0	4·3	1·3	0·3	1·4	0·2	1·9	1·3	0·4	27
28	Basti	0·8	0·0	3·5	0·3	3·0	3·4	0·0	6·4	0·0	0·6	2·7	1·6	28
29	Azamgarh	1·7	0·2	0 6	1·0	6·3	0·9	0·1	0·7	0·6	0·2	1·0	1·4	29
30	Gházipur	1·1	0·8	0·9	2·4	8·1	0·2	0·1	0·4	0·9	0 0	0·5	2·0	30
31	Benares	2·0	1·9	0 7	1·4	4·4	0·5	0·8	1·7	2·1	0·3	1·3	2·3	31
32	Mirzapur	2·1	0·6	0·4	1·9	4·5	0·8	0·1	1·4	1·2	0·1	2·2	3·5	32
33	Jalaun	25·1	0·1	0·0	0·0	6·4	0·0	0·0	0·1	0·1	0 0	1·2	0·3	33
34	Jhánsi	27·8	0·0	0·0	0·0	5·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	34
35	Lalitpur	3·0	0·1	0·0	0·0	10·9	0·0	0·0	0·0	0 0	7 0	0 0	0·0	35
	Total	2·5	0·2	1·9	0·5	2·3	0·4	0·1	1·6	0·4	0·2	1·3	0·8	

The table shows that the epidemic prevalence was confined in 1876 to the eastern districts neighbouring Bengal and to certain districts of Rohilkhand, especially Bareilly, and it should be noticed that a very considerable mortality from this cause occurred in Kumaun. During 1875 the mortality from cholera occurred


MAP
OF THE
MORTUARY CIRCLES OF THE N.-W. P. AND OUDH
SHOWING
CHOLERA PREVALENCE IN 1876.
Figures.—Show ratio of deaths from Cholera per 1,000 of population in each Circle.
Shaded portions—Show areas of excessive prevalence.
SCALE—TWENTY MILES TO AN INCH
Miles
RAMPUR
CHAMBAL RIVER
From Delhi

GANDAK RIVER
GANGES RIVER
G. T. Road to Calcutta
SONE RIVER

in Garhwál only of the Himálayan country. In 1876 the mortality occurred in Kumaun only. The areas of prevalence are shown in the accompanying map.

47. I think the preceding table is becoming of some value as years progress. From it a law of probable prevalence in every district may be evolved.

For example, assuming that the record of one death per 1,000 of population during the year in any district denotes epidemic prevalence in some part of that district; the figures of the table seem to denote an average prevalence for twelve years as follows throughout the districts of the province :—

One year in twelve in the six districts—Garhwál, Bijnor, Muzaffarnagar, Bulandshahr, Muttra, and Mainpuri.

Two years in twelve in the ten districts—Kumaun, Moradabad, Budaun, Saháranpur, Meerut, Aligarh, Etah, Agra, Jhánsi, and Lalitpur.

Three years in twelve in the five districts—Dehra Dún, Bareilly, Farukhabad, Etáwah, and Jalaun.

Four years in twelve in the six districts—Tarái, Sháhjahánpur, Hamírpur, Allahabad, Jaunpur, and Ghazipur.

Five years in twelve in the three districts—Cawnpore, Fatehpur, Azamgarh.

Six years in twelve in the two districts—Bánda and Basti.

Seven years in twelve in one district—Mirzapur.

Eight years in twelve in the two districts—Gorakhpur and Benares.

48. The season of prevalence in 1876 may be learnt from a study of annual form VI. in the appendix, which shows that as usual, whilst cholera may prevail in the eastern districts as early as February, it does not commence to prevail in the north-west districts until May. It may also be seen, that while the serious prevalence ceased in the eastern districts as early as July, it continued even to October in the north-west districts. The marked absence of the disease during the cold season is also shown in accordance with the usual law.

49. With a view to determine as accurately as possible the centres of population in which deaths from cholera have occurred the daily returns received during the year have been posted into seven divisional registers. The total result shows that cases were reported from 3,281 centres of population throughout the province, there being a total of 91,274 centres of population in the province.

50. Of all these 3,281 villages or towns, in by far the greater number, less than five deaths from cholera were reported.

The figures are 2,240 villages showing less than five deaths, and 1,041 villages showing more than five deaths. Of these, 429 show more than ten deaths, and only 163 show more than twenty deaths.

51. The following is the exact statement for all the districts from which daily reports were received during the time of cholera prevalence :—

District.	No. of villages in the district.	No. of towns or villages affected by cholera.	No. of those in which more than 5 deaths occurred.	No. of those in which more than 10 deaths occurred.	No. of those in which more than 20 deaths occurred.
Kumaun	6,346	120	31	10	1
Tarái	594	105	36	18	6
Bareilly	3,082	304	114	60	23
Sháhjahánpur	2,004	30	11	8	6
Mainpuri	1,146	2	...	...	...
Farukhabad	1,862	1	...	...	...
Agra	1,436	1	...	...	...
Fatehpur	1,458	209	46	19	5
Hamírpur	752	71	40	24	11
Bánda	1,231	96	31	19	7
Allahabad	3,699	483	105	31	11
Jaunpur	3,212	158	49	17	6
Basti	7,555	284	126	57	16
Gorakhpur	8,248	60	15	4	2
Azamgarh	6,363	302	106	42	20
Gházipur	5,206	368	105	39	15
Benares	1,931	213	54	13	5
Mirzapur	5,722	468	168	66	28
Jalaun	923	6	4	2	1
Total ...	62,770	3,281	1,041	429	163

52. I believe there can be no doubt that the 163 centres of population in the last column of the statement are those in which serious mortality from cholera occurred during the past year. And as a great prevalence of this disease undoubtedly points to the necessity of sanitary improvement in the places affected, I think it may lead to good result if I point out by name the places of great mortality from this cause in 1876.

The list seems long, but I do not think it can be shortened with propriety. As a rule it may be seen that I condense all the information I possess concerning mortality into the smallest possible compass in hopes of making the general facts acceptable to the reader and easy of recollection. But in the case of serious mortality from a disease like cholera, a more detailed information is necessary.

Localities of cholera epidemic prevalence in 1876.

District.	Mortuary circle.	Village or town.	Deaths from cholera in 1876.
KUMAUN.	Almora ...	Almora ...	116
TARAI.	Rudarpur ...	Saijana ...	42
	Bázpur ...	Sultanpur ...	26
	Káshipur ...	Kháshipur ...	42
		Girdhai ...	21
		Manorathpur ...	34
	Jaspur ...	Jaspur ...	20
BAREILLY.	Pilibhit ...	Pilibhit ...	159
		Jumronua ...	67
		Sheopuri ...	20
	Neorya ...	Gooleria ...	20
		Rithora ...	21
	Rithora ...	Meondi ...	26
		Burkapur ...	21
		Bichha ...	32
	Richha ...	Moondea Nabee Buksh.	26
		Moondea ...	16
	Bareilly ...	Bareilly (city) ...	349
		Poornapur ...	32
		Laiha ...	26
	Cantonement ...	Sudder Bazar ...	25
		Maturpur ...	29
		Munkapur ...	22
	Bhoota ...	Shahbazpur ...	23
		Moorarpur ...	31
		Bhoota ...	36
	Faridpur ...	Faridpur ...	20
	Sarauli ...	Kasurpur ...	34
	Sháhi ...	Sháhi ...	29
	Mirganj ...	Bamseoh ...	21
SHAHJAHANPUR.	Shahjahanpur ...	Shahjahanpur city	43
	Pawayan ...	Pawayan ...	47
		Tebandepur ...	23
	Tilhar ...	Barkhera ...	62
	Seramow (north)	Gora ...	30
	Dhakia ...	Garwarpur ...	21
FATEHPUR.	Gházipur ...	Bawanra ...	30
	Kalianpur ...	Googauli ...	21
	Fatehpur ...	Fatehpur ...	52
	Husainganj ...	Makunpur ...	19
	Hathgaon ...	Muzra Pulya ...	19
JAUNPUR.	Mariáhu ...	Nundyaon ...	19
	Shahganj ...	Bazar Koureeah...	26
		Bazar Shahganj ...	19
	Sarai Mohi-ud-din	Surapur ...	28
	Jaunpur ...	Nathunpur ...	22
	Sarae Khojeh ...	Mairowanh ...	22
HAMIRPUR.	Sumerpur ...	Pudh Khyra Buzurg.	49
	Mahoba ...	Mahoba ...	121
		Chakaira ...	21
		Bilbye ...	74
	Kurára ...	Kurara ...	35
	Hamirpur ...	Pauthia Buzurg	24
	Muskara ...	Gehroulee ...	42
	Panwari ...	Kurchra ...	28
	Kulpahár ...	Kulpahár ...	54
		Dadri ...	23
	Srinagar ...	Pawa ...	85

District.	Mortuary circle.	Village or town.	Deaths from cholera in 1876.
BANDA.	Tindwari ...	Parsaunda ...	24
		Tindwari ...	22
	Banda ...	Banda ...	22
		Budokhar ...	45
	Khurhand ...	Nivada ...	40
	Paprenda ...	Atrabat ...	20
	Mataund ...	Sirsi Kalan ...	20
ALLAHABAD.	Phúlpur ...	Autroura ...	25
		Konar ...	19
		Soonra ...	33
	Hanumánganj ...	Chikree ...	30
		Sullampur ...	19
	Meja ...	Herdatta ...	20
	Allahabad ...	Allahabad city ...	41
	Saini ...	Muzra Nara ...	39
	Kheree ...	Jara ...	23
	Soraon ...	Purajheet ...	19
		Soraon ...	28
GORAKHPUR.	Bánsgaon ...	Sairon ...	30
	Sahjanwa ...	Minwah ...	26
BASTI.	Paikaulia ...	Bhita grant of Major Thomson.	23
		Kotia ...	25
	Amroha ...	Gokula ...	21
		Itai ...	25
	Bungawan ...	Nagpur ...	27
		Jugernathpur ...	35
	Dudhara ...	Bhugra ...	42
	Kotila ...	Shahera ...	22
		Madadgarh ...	21
	Chuppia ...	Dariopur ...	21
		Joriprag ...	20
		Asurian ...	23
	Captainganj ...	Kawa ...	35
	Domariaganj ...	Bhari ...	25
	Belwa ...	Biskohar ...	42
		Badhi ...	20
AZAMGARH.	Bardah ...	Udiawan ...	35
		Bardah ...	28
		Jiwlee ...	23
	Deogaon ...	Unagooni ...	35
		Bahadurpur ...	44
		Harakhpur ...	21
	Madhuban ...	Laknair ...	20
	Sikandarpur ...	Masumpur ...	19
		Hasainpur ...	25
	Nizámabad ...	Kothila ...	29
	Gamberpur ...	Dialpur ...	53
		Mahmudpur ...	48
	Hardharpur ...	Sohari ...	22
		Hardharpur ...	27
	Nagara ...	Barkagaon ...	22
	Tarwah ...	Tarwahkhas ...	39
		Bhongoan ...	34
		Nawapura ...	26
	Chiriákote ...	Chiriákot ...	45

District.	Mortuary circle.	Village of town.	Deaths from cholera in 1876.	District.	Mortuary circle.	Villages of town.	Deaths from cholera in 1876.
Ghazipur.	Ghazipur ...	Ghazipur ...	90	Mirzapur—(concluded.)		Sidhai ...	53
	Nandganj ...	Soraon ...	55			Lusra ...	23
	Kassimabad ...	Kassimabad ...	135		Robertsganj ...	Saijan Kullan ...	40
	Gurwan ...	Majhauli ...	31			Naraon ...	43
	Kbrantadih ...	Narainpur ...	24			Deori Kullan ...	22
	Rasra ...	Dehree ...	29			Korahta ...	22
	Behreah ...	Nauranga ...	37				
		Karan chapra ...	21			Tairi ...	33
		Behreah ...	27		Amraura ...	Bhutwara Kullan	22
	Bahnsdee ...	Bahnsdee ...	41			Imlia ...	26
	Zamániah ...	Zamániah ...	147			Barwadih ...	21
	Reoti ...	Reoti ...	43				
	Sadat ...	Mirzapur ...	19			Pankhub Palli ...	40
	Dhanapur ...	Dhanapur ...	98			Koraon ...	29
	Koranda ...	Koranda ...	29			Purna ...	23
Benares.	Benares ...	Benares city ...	328			Amhi ...	14
	Sakaldiha ...	Khore ...	20			Bhikhampur ...	36
	Phulpur ...	Kutraon ...	24		Panuganj ...	Larna ...	26
	Syyidraja ...	Khanapur ...	29			Jiria ...	36
		Gaurali ...	31			Domaria ...	23
	Bindhachal ...	Bindhachal ...	32			Imliadih ...	25
Mirzapur.	Chunar ...	Chunar ...	64			Manchi ...	27
		Samra ...	32			Dolipur ...	32
		Bisunpur ...	33				
	Gopiganj ...	Bharatpur ...	29		Mirzapur ...	Mirzapur city ...	136
		Parasrampur ...	19				

SMALL-POX.

53. The comparative prevalence of mortality from small-pox during the past twelve years appears in the following table :—

Registered mortality from small-pox in all districts for 12 *years* (1865 to 1876).

No.	Districts.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
1	Kumaun ...	...	...	...	...	...	1	...	...	1	...	...	...
2	Garhwál ...	...	...	...	...	...	...	...	1	...	...	...	...
3	Tarái ...	...	2	3	...	...	2	...	1	2	1	1	
4	Bijnor ...	1	39	45	2	...	5	69	38	15	20	20	41
5	Moradabad ...	10	40	60	8	7	25	50	13	35	33	16	57
6	Bareilly ...	52	127	43	13	6	19	43	29	77	18	9	30
7	Sháhjahánpur ...	86	113	11	2	67	20	35	31	52	26	8	12
8	Budaun ...	28	20	34	4	5	7	12	13	58	15	4	26
9	Dehra Dún ...	...	...	1	...	...	...	...	1	...	...	...	...
10	Saháranpur ...	24	103	11	32	11	20	44	53	38	18	23	23
11	Muzaffarnagar ...	...	57	10	23	11	30	43	11	31	9	17	18
12	Meerut ...	72	37	9	9	50	22	13	8	25	10	3	1
13	Bulandshahr ...	57	199	24	13	63	16	4	10	70	11	7	3
14	Aligarh ...	79	10	4	19	64	5	7	6	47	13	11	12
15	Etah ...	52	1	5	11	35	1	3	3	50	13	4	3
16	Muttra ...	100	1	1	10	60	4	3	5	18	6	6	6
17	Farukhabad ...	67	4	4	7	39	...	3	1	15	33	3	6
18	Mainpuri ...	24	4	13	9	42	1	1	...	8	32	2	1
19	Agra ...	67	1	5	10	78	2	3	4	32	13	9	4
20	Etáwah ...	13	1	2	2	36	2	2	1	5	48	2	2
21	Cawnpore ...	75	3	13	4	63	3	12	2	55	74	9	3
22	Fatehpur ...	18	4	7	5	61	...	1	2	5	31	4	2
23	Jaunpur ...	8	5	13	11	18	5	1	2	10	33	2	2
24	Hamirpur ...	30	1	1	13	41	3	3	4	1	12	9	18
25	Banda ...	25	4	8	12	70	1	2	3	3	28	22	7
26	Allahabad ...	6	6	7	8	14	3	2	3	18	66	4	4
27	Gorakhpur ...	7	11	25	3	4	2	2	11	149	138	6	8
28	Basti ...	27	11	17	12	4	5	8	33	89	21	4	10
29	Azamgarh ...	40	6	5	20	12	18	3	3	23	96	2	1
30	Gházipur ...	25	9	6	17	12	11	3	2	22	58	2	5
31	Benares ...	5	2	4	8	12	2	2	1	6	6	2	3
32	Mirzapur ...	23	6	3	8	23	3	3	4	9	23	6	9
33	Jalaun ...	2	1	...	2	15	1	1	...	1	14	2	2
34	Jáhnsi ...	8	1	...	1	32	...	1	1	1	4	6	18
35	Lalitpur ...	9	5	2	1	10	...	...	3	...	4	34	11
	Total ...	1,076	663	398	299	907	235	384	300	970	932	258	352

In this table entries of deaths stand for hundreds ;—thus 15 stands for 1,500.

54. The table shows that during 1876 small-pox prevailed to a serious extent only in Bundelkhand, Rohilkhand, and two northern districts of the Doab.

The usual immunity from this disease enjoyed by Kumaun, Garhwál, Dehra Dún, and in some measure Tarái, is marked also during 1876. These are the countries in which the infant population is efficiently protected by vaccination, and the continuous favourable result here reflects great credit on the Vaccination Department. The labours of this department extend to all the districts of the province, and doubtless, if all the infants born in any year could be vaccinated during the ensuing cold season, the infant population might enjoy everywhere the same freedom from this scourge as the infant population of the protected districts.

55. Assuming that the value of life in this province is 31 years (Mr. Plowden's estimate), it follows that about 1,000,000 infants must be born every year if the existing population of 31,000,000 is to be maintained.

By reference to the succeeding section on vaccination, it may be seen that during the year 1876 a total of 507,748 successful primary vaccinations were performed.

From these figures it seems probable that about half the infants born in 1875 may have been protected in 1876. This half protection is a very great improvement upon the operations of previous years, the average of the past six years being only 375,384 successful cases. And the result of such increasing work will, I have no doubt, make itself apparent in a gradual decline of deaths from small-pox.

I have not ever before been able to write so hopefully on this subject, but the fact that one-half the population most prone to suffer and die from this cause should have been protected in one year is very worthy of record; for the ravages of small-pox are very great amongst the population influenced, which is almost entirely included within the one-third of infants and children. The adult population, indeed, bear ample marks of its power upon their faces, and in their very considerable admixture of blind persons, who trace their misfortune to the result of small-pox disease.

But the great stress of death from this cause falls on the infant population. How great this stress is wherever the disease has established itself in epidemic force may be learnt by a consideration of the following circumstances.

56. In the Jhánsi epidemic of the past year the great stress of mortality from this cause fell upon the people of the five mortuary circles—Seorai, Sikrar, Bahaina, Bonda, and Churára—which contain a collective population of 61,577. Taking the usual average of one-third to be children below twelve years of age, the infant population is 20,526. Amongst these 733 deaths from small-pox were recorded. The ratio is 35·7 per 1,000.

In the town of Bachhraon in Moradabad the ratio of deaths from small-pox was 67·0 per 1,000 of the infant population.

In the town of Chándpur in Bijnor it was 37·8.

57. The accompanying map shows the area of small-pox prevalence during the past year.

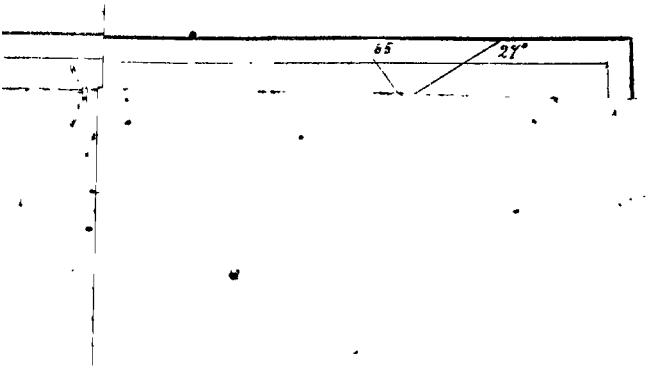
FEVER.

58. Fever, the great cause of death in this province, was unusually prevalent and fatal in 1876. Of the total ratio of mortality (23·39), the large proportion of 16·10 has to be allotted to fever alone. The district mortality may be found in form VIII. of the appendix.

The districts of greatest mortality from this cause in 1876 were—

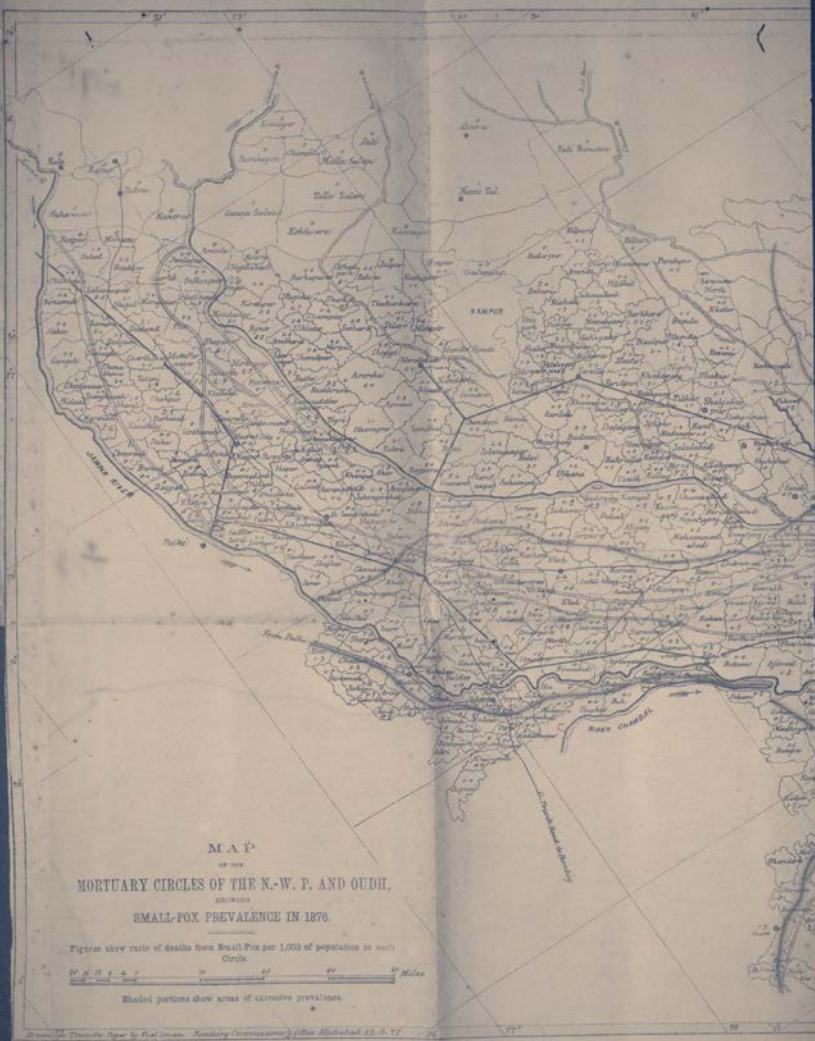
Ratio of deaths from fever per 1,000 *of population.*

District.	1874.	1875.	1876.
1. Tarái	24·36	27·99	32·02
2. Cawnpore	17·44	17·88	21·26
3. Muzaffarnagar	18·77	21·04	20·23
4. Mirzapur	13·95	15·57	20·02
5 Sháhjahánpur	13·92	15·11	19·92
6. Etáwah	18·97	18·05	19·51
7. Bareilly	13·79	16·01	19·18



the past year.

GANDAK RIVER
GHOGRA RIVER
GANGES RIVER
G.T. Road to Calcutta
SONE RIVER


MAP
OF THE
MORTUARY CIRCLES OF THE N.-W. P. AND OUDH,
SHOWING
SMALL-POX PREVALENCE IN 1876.
Figures show ratio of deaths from Small-Pox per 1,000 of population in each Circle.
Miles
Shaded portions show areas of excessive prevalence.
KANPUR
JUMNA RIVER
RIVER CHAMBAL

MAP
OF THE
MORTUARY CIRCLES OF THE N.-W. P. & OUDH
SHOWING
FEVER PREVALENCE IN 1876.
FIGURES show ratio of deaths from fever per 1,000 of population in each circle.
SHADED PORTIONS—show areas of excessive prevalence.
SCALE—TWENTY MILES TO AN INCH.
Miles
Delhi
RIVER CHANNEL

As usual Tarái heads the list. A moist country of excessive vegetation, the home of violent remittent fevers, this result is to be expected.

That Cawnpore should appear second on the list is a new experience. But in my report for 1875 it was pointed out, that if excessive canal irrigation was a cause of fatal fever disease, it might be expected that the Cawnpore district would be the next to suffer from this cause. The results of the past year's registration appear to uphold the correctness of this view. Further proof in this direction will be provided when the results of canal irrigation on mortality in the Fatehpur district are recorded. When the lower ganges canal is brought into operation the Fatehpur district will be added to the irrigated list, and then the people of that district will have to undergo a process of acclimatization to the new conditions surrounding them. During the process, as the result of experience, fever disease may be expected to prevail.

59. It is very satisfactory to notice the gradual decline in the fever mortality of the Upper Doab districts. The ratios of mortality from this cause recorded in these districts for the past five years has been :—

District.	1872.	1873.	1874.	1875.	1876.
Saharanpur	29·76	23·82	18·78	13·21	15·32
Muzaffarnagar	23·94	24·85	22·75	21·04	20 23
Meerut	35·55	25·83	26·82	21·01	13·50
Bulandshahr	32·19	32·34	36·92	24·00	18·86
Etah	22·12	24·23	19·30	19·06	17·71
Aligarh	19·87	23·15	21·62	16·39	16·01

In Muzaffarnagar only is the ratio still excessive, yet there is decline there also. In the remaining districts I think the fever mortality has decreased to the normal ratio.

This great result is due, I think, to two causes,—the gradual acclimatization of the inhabitants to the changes brought about by canal irrigation, and the improved drainage of the land. In the reality of this drainage, by which many swampy places have been changed to dry land, the Irrigation Department has conferred a lasting benefit on the people influenced ; and I think it may be hoped that, with such guiding experience, efficient drainage operations may progress hand-in-hand with all new irrigation operations.

60. The position of Mirzapur, fourth in the list of districts of excessive fever mortality, is a quite unusual circumstance. I think this result may be due to unusual climatic conditions, the result of excessive rainfall. The average rainfall of five rain-gauge stations in that district in 1876 was 44·5 inches. No rain at all fell in this district during the first five months of the year, and very little in June. In July, August, and September the average fall was 41·7 inches. The resulting climatic conditions of such distribution of rainfall would be, excessive heat in the first half of the year, followed by excessive moisture—conditions likely to promote fatal fever disease.

By reference to the accompanying map showing areas of fever prevalence, it may be noticed that the area of excessive prevalence in Mirzapur was principally in the circles south of the Ganges. The rain-gauge station of this portion of the country is Robertsganj. The fall registered there was 57·4 inches, of which 55·2 inches fell in July, August, and September. This, I should think, almost unprecedented rainfall, will rightly account for the great fever mortality of that part of the country during the past year.

BOWEL COMPLAINTS.

61. During the year 1876 deaths from bowel complaints, principally dysentery and diarrhœa, were most numerous in the following districts :—

Districts of greatest mortality from bowel complaints during the past six years.

Number.	District.	1871. Ratio of deaths per 1,000 living.	1872. Ratio of deaths per 1,000 living.	1873. Ratio of deaths per 1,000 living.	1874. Ratio of deaths per 1,000 living.	1875. Ratio of deaths per 1,000 living.	1876. Ratio of deaths per 1,000 living.
1	Kumaun	3·39	4·91	5·05	3·46	4·76	4·64
2	Garhwál	3·34	3·31	7·11	6·53	7·65	8·08
3	Moradabad	3·39	5·40	4·74	3·92	4·40	5·52
4	Sháhjahánpur	3·99	6·85	4·74	3·71	3·99	5·55
5	Budaun	1·54	2·46	2·06	3·14	5·78	6·98
6	Dehra Dún	2·55	2·66	4·27	4·14	4·98	7·00
7	Saháranpur	2·75	2·91	2·44	3·38	4·64	4·48
8	Aligarh	2·26	2·92	3·87	3·03	4·85	5·10
9	Fatehpur	4·13	4·81	4·04	2·84	3·42	4·15
10	Hamírpur	6·10	7·10	6·71	4·35	4·83	8·12
11	Lalitpur	2·43	4·49	4·76	4·22	5·42	8·65
12	Jalaun	2·83	1·00	1·56	3·08	4·23	4·54
13	Jhánsi	2·81	2·75	2·51	1·74	3·87	6·07
14	Bijnor	2·30	2·99	2·85	3·02	4·79	8·39

The table shows that the districts of greatest mortality from this cause in 1876 were, with few exceptions, districts of great mortality from this cause during the past six years.

As usual bowel complaints are seen to be a common form of disease in Kumaun and Garhwál and in the Bandelkhand country.

The increased prevalence of death from this cause in Bijnor during 1876, in addition to the continued undue prevalence in three other Rohilkhand districts, adds strength to the opinion that bowel disease must be a frequent cause of death in that country.

INJURIES AND ACCIDENTS.

62. During the year 1876 the deaths recorded from this cause were males 6,406, females 7,081,—total 13,487—or, as usual, considerably more females than males, this being the only cause of death so noticeable. The difference is due to the greater prevalence of suicide amongst females, and to their greater liability to death from snakebite and attack of wild beasts. Of a total of 1,468 deaths by suicide 1,039 were deaths of women. Of a total of 3,790 deaths from snakebite or attack of wild beasts 2,212 were deaths of women. During 1876 the districts of the following list still maintained their pre-eminence for death by suicide :—

Districts of greatest mortality from suicide.

Districts.	1873 Deaths by suicide.	1874 Deaths by suicide.	1875 Deaths by suicide.	1876 Deaths by suicide.		
	Total.	Total.	Total.	Male.	Female.	Total.
Sháhjahánpur	141	146	155	45	94	139
Farukhabad	100	109	84	14	72	86
Azamgarh	94	85	76	16	53	69
Budaun	54	77	64	18	39	57
Jhánsi	72	68	80	8	43	51
Hamírpur	59	56	64	18	42	60
Bánda	61	50	59	17	40	57
Allahabad	60	59	59	18	43	61
Gházipur	71	64	59	8	44	52

Self-poisoning by opium, which is much grown in the districts of the list, probably accounts for this pre-eminence.

Districts of greatest mortality from wounds.

Districts.	1873.	1874.	1875.	1876.		
	Deaths by wounds.	Deaths by wounds	Deaths by wounds.	Deaths by wounds.		
	Total.	Total.	Total.	M.	F.	Total.
Agra	98	137	125	51	43	94
Moradábad... ...	64	95	85	71	57	128
Sháhjahánpur ...	42	39	28	32	18	50
Kumaun	119	57	60	28	14	42
Garhwál	67	65	54	22	13	35
Budaun	38	39	56	31	19	50
Mirzapur	66	59	34	26	19	45
Farukhabad ...	60	54	44	20	18	38

The comparatively Muhammadan districts of Agra and Moradabad head the list as usual, a fact undoubtedly due to the Muhammadan partiality for the use of the sword.

Kumaun and Garhwál still rank high on the list, the axe or kúkri being ready to every man's hand in that Himalayan country.

Districts of greatest mortality from snake-bite or attacks of wild beasts.

Districts.	1873.	1874.	1875.	1876.		
	Deaths from snake-bite or wild beasts.	Deaths from snake-bite or wild beasts.	Deaths from snake-bite or wild beasts.	Deaths from snake-bite or wild beasts.		
	Total.	Total.	Total.	M.	F.	Total.
Gorakhpur	465	440	516	143	324	467
Bánda	390	407	329	86	150	236
Allahabad	263	297	188	58	110	168
Mirzapur	225	226	208	76	116	192
Budaun	225	184	187	90	162	252
Bareilly	275	193	223	81	123	204
Bijnor	172	147	166	60	77	137
Moradabad	203	140	173	78	83	157
Sháhjahánpur	199	143	150	56	69	125
Basti	196	158	263	90	136	226
Cawnpore	159	121	151	57	51	108
Jaunpur	132	104	136	56	97	153
Azamgarh	126	114	133	70	130	200
Gházipur	86	67	136	42	74	116

The list is valuable as pointing out where a persistent high mortality from the causes in question occurs, and where consequently measures for the prevention of this cause of death are most required.

INDEX TO THE CHOLERA, SMALL-POX, AND FEVER MAPS OF THE NORTH-WESTERN PROVINCES AND OUDH, SHOWING RATIO OF DEATHS PER 1,000 OF POPULATION FROM THE DISEASES DURING 1876 IN EACH CIRCLE.

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
1	Kumaun	Almora T. ...	4,125	24·4	...	8·0
2		Barmdeo R. ...	...	...	...	...
3		Kali Kumaun „ ...	47,532	6·3	...	14·2
4	Garhwál	Barahsyun R. ...	44,727	...	...	9·2
5		Srinagar „ ...	2,052	...	...	16·5
6		Chandkote „ ...	23,060	...	...	10·2
7		Malla Sallan „ ...	38,818	...	...	5·8
8		Talla do. „ ...	36,125	...	...	9·2
9		Ganga do. „ ...	40,877	...	...	8·3
10	Tarái	Kashipur R. ...	13,221	3·4	0·8	20·8
11		Jaspur „ ...	17,243	7·2	...	29·3
12		Bazpur „ ...	23,032	5·2	...	26·7
13		Gadarpur „ ...	15,811	·1	·7	37·5
14		Rudarpur „ ...	23,912	5·7	...	39·4
15		Kilpuri „ ...	14,874	4·1	·3	36·8
16		Nanakmata „ ...	14,256	2·0	...	35·5
17		Bilhari ...	22,350	·2	...	31·5
18	Bijnor	Bijnor T. ...	12,865	...	6·2	27·5
19		Amsot R. ...	2,279	...	...	31·1
20		Kouria „ ...	361	...	...	27·7
21		Najibabad „ ...	42,245	·1	3·8	22·3
22		Nagal „ ...	18,220	...	4·9	18·0
23		Barhapura „ ...	27,537	...	3·6	30·9
24		Kiratpur „ ...	51,583	...	5·9	12·7
25		Mandawar „ ...	30,340	...	3·1	16·2
26		Nagina „ ...	55,012	...	4·7	12·9
27		Afzalgarh „ ...	36,695	1·8	5·1	16·6
28		Nihtor „ ...	31,282	...	5·8	15·4
29		Dhampur „ ...	48,216	...	·4	·9
30		Sherkot „ ...	19,072	1·0	·6	·8
31		Rehar „ ...	17,818	...	3·5	20·0
32		Ambera „ ...	34,518	...	3·9	11·6
33		Ganj & Daranagar R.	7,765	...	1·5	15·2
34		Bushta R. ...	27,979	...	·23	13·7
35		Chandpur „ ...	58,946	...	7·8	6·2
36		Nurpur „ ...	35,225	...	8·3	16·6
37		Seohara „ ...	38,691	·1	6·8	17·8
38	Moradabad	Moradabad T. ...	62,417	·1	6·7	13·3
39		Thakurdwara R. ...	60,330	4·6	5·9	15·0
40		Dillari „ ...	52,583	·9	8·1	18·5
41		Chajlait „ ...	42,039	...	5·9	9·8
42		Manpur „ ...	48,912	3·3	6·5	14·9
43		Bachhraon „ ...	52,115	...	2·2	6·8
44		Amroha „ ...	91,738	...	6·0	9·9
45		Tigri „ ...	15,256	...	1·0	23·5
46		Mondha „ ...	44,386	...	3·5	18·2
47		Hasanpur „ ...	39,984	...	1·1	20·4
48		Asmoli „ ...	54,029	...	2·9	19·8
49		Mynathere „ ...	41,957	...	10·0	20·8
50		Kundarki „ ...	45,497	...	5·0	17·4
51		Rehra „ ...	31,753	...	3·1	19·3
52		Sambhal „ ...	64,764	...	·6	11·6
53		Seondara „ ...	57,099	·5	3·5	17·0
54		Chandausi „ ...	47,903	...	3·3	17·6
55		Bahjoi „ ...	61,244	·1	7·6	12·2
56	Bareilly	Bareilly T. ...	96,485	5·0	3·4	22·6
57		Baheri R. ...	62,368	·8	2·0	19·4
58		Amariah „ ...	29,471	...	·6	28·0
59		Neoriya „ ...	44,825	1·9	·4	12·4
60		Sishgarh „ ...	40,546	...	4·1	20·2
61		Richha „ ...	76,587	2·1	1·2	13·1
62		Jahanabad „ ...	67,977	1·4	1·2	18·3
63		Pilibhit „ ...	88,169	1·5	·6	17·9
64		Puranpur „ ...	28,577	1·2	·3	30·0
65		Shahi „ ...	55,090	·1	1·5	9·9

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
66	Bareilly—(concld.)	Deoranniah R. ...	17,892	·8	1·2	26·2
67		Bhojupura „ ...	25,546	5·7	3·3	29·1
68		Háfizganj „ ...	76,587	·3	1·5	15·9
69		Nawabganj „ ...	47,689	4·8	2·6	13·7
70		Mirganj „ ...	42,461	1·7	1·9	18·8
71		Fatehganj west R.	38,236	2·2	2·1	16·2
72		Rithowra R. ...	20,827	10·0	3·8	4·42
73		Barkhera R. ...	61,869	·3	2·5	15·3
74		Sarauli „ ...	44,924	·8	2·7	21·6
75		Gyni „ ...	28,299	1·2	3·0	20·2
76		Bhutah „ ...	31,086	6·8	5·3	30·1
77		Bisalpur „ ...	97,351	·3	3·0	9·9
78		Aonla „ ...	73,439	·5	·8	20·8
79		Bhamora „ ...	49,574	1·2	2·5	22·2
80		Faridpur „ ...	69,190	·8	·8	19·9
81		Bilsanda „ ...	39,777	·8	1·8	22·0
82		Fatehganj (east) R.	19,538	...	·7	20·9
83	Shéhjéhanpur	Shéhjéhanpur T. ...	74,191	1·1	4·7	17·3
84		Seramau (north) R.	20,190	1·4	·1	31·9
85		Khutar R. ...	35,523	...	·5	28·1
86		Bundah „ ...	73,341	·3	·5	17·2
87		Pawayan „ ...	76,268	·5	·3	15·2
88		Dhakiya „ ...	47,622	·7	1·5	27·5
89		Nigohi „ ...	42,322	·3	1·5	23·0
90		Khudaganj „ ...	39,688	...	2·1	18·1
91		Katra „ ...	35,794	·3	·6	21·4
92		Tilhar „ ...	57,592	1·4	1·7	18·7
93		Kant „ ...	33,975	...	·2	14·2
94		Jaintipur „ ...	45,910	...	·7	12·7
95		Madnapur „ ...	41,334	...	1·0	11·4
96		Seramau (south) R.	44,849	·4	·7	25·3
97		Jalalabad R. ...	49,429	...	·5	18·1
98		Kundurish „ ...	32,887	...	·2	23·5
99		Mirzapur „ ...	38,228	...	·2	15·3
100		Kullan „ ...	38,899	...	·8	13·9
101	Budaun	Budaun T. ...	31,215	·7	3·2	11·2
102		Rajpura R. ...	53,720	...	6·0	13·7
103		Bisauli „ ...	55,023	...	4·1	19·0
104		Islamnagar „ ...	59,460	...	4·4	6·6
105		Gunnaur „ ...	67,123	...	2·4	11·3
106		Wazirganj „ ...	38,239	...	1·2	27·3
107		Bilsi „ ...	94,984	...	3·7	14·7
108		Zarifnagar „ ...	40,063	...	3·2	20·3
109		Sadullaganj „ ...	22,681	...	2·4	21·4
110		Sahaswan „ ...	42,372	...	4·3	14·4
111		Dataganj „ ...	68,169	...	1·5	11·5
112		Ujhani „ ...	79,570	·3	1·4	6·7
113		Hazratpur „ ...	30,712	...	·8	23·0
114		Kakrala „ ...	32,473	...	·7	24·3
115		Usehat „ ...	47,212	...	·7	17·3
116	Kheri	Kheri and Lakhimpur T.	10,803	...	11·8	20·2
117		Mahomdi R. ...	108,334	·1	1·5	20·5
118		Dhaurahra „ ...	121,698	...	·3	21·9
119	Sitapur	Khairabad T. ...	15,677	...	5·0	13·0
120		Sitapur „ ...	5,780	...	2·0	33·7
121		Bari R. ...	116,237	...	·5	15·2
122		Mahmudabad R. ...	112,406	...	·1	9·8
123		Biswan R. ...	111,425	...	·6	11·4
124		Maholi „ ...	90,232	...	1·0	17·5
125		Misrik „ ...	79,007	...	·3	17·6
126		Hargaon „ ...	58,703	...	3·2	19·7
127		Tambour „ ...	67,814	...	1·6	12·8

Index to the Cholera, Small-pox, and Fever Maps of the North-Western Provinces and Oudh, showing ratio of deaths per 1,000 *of population from the Diseases during* 1876 *in each Circle*—(continued).

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
128	Hardoi.	Shahabad T.	19,477	...	...	11·6
129		Sandila ,,	15,511	...	1·2	15·0
130		Mallawan ,,	11,670	...	...	19·8
131		Bilgram ,,	11,598	...	·1	12·3
132		Sandi ,,	11,123	...	·7	12·1
133		Hardoi ,,	6,416	...	·4	17·1
134		Bilgram R.	107,369	...	·9	12·4
135		Shahabad ,,	112,948	...	...	12·4
136		Pihani ,,	79,330	...	·2	17·5
137		Sandila ,,	116,822	·1	...	10·2
138		Mallawan ,,	86,141	...	·1	15·9
139	Dehra Dun.	Dehra T.	7,316	...	...	18·8
140		Kalsi R.	40,046	...	...	6 1
141		Sanspur ,,	15,667	...	...	19·5
142		Rajapur ,,	4,792	...	...	·2
143		Mussooree ,,	...	...	...	...
144	Saharanpur.	Saharanpur T.	44,723	...	6·6	11·4
145		Behat R.	46,066	...	1·8	18·8
146		Mohan ,,	10,199	...	...	21·8
147		Chilkana ,,	27,647	...	1·0	18·9
148		Fatehpur ,,	33,558	...	4·5	13·7
149		Sarsawa ,,	28,535	...	·4	7·3
150		Roorkee ,,	45,400	...	1·0	18 1
151		Bhagwanpur ,,	33,155	...	2·7	10 7
152		Jawalapur ,,	33,016	...	4·7	12·4
153		Nakur ,,	44,752	...	2·3	17·2
154		Rampur ,,	47,787	...	2·0	21·4
155		Nagal ,,	43,536	...	1·1	12·1
156		Manglaur ,,	46,886	...	2·0	15·0
157		Sultanpur Konari R.	12,000	...	6·0	23·7
158		Gangoh R.	34,446	·1	2·7	13·8
159		Nanauta ,,	22,141	...	1·7	26·8
160		Badgaon ,,	33,514	...	2·6	19·1
161		Deoband ,,	51,890	...	2·1	10·5
162	Muzaffarnagar.	Muzaffarnagar T.	10,793	...	1·1	15·8
163		Chusanah R.	12,949	...	4·0	21 2
164		Thana Bhawan ,,	27,535	...	3·0	21 8
165		Charthawal ,,	34,950	...	4 5	21·5
166		Pur ,,	33,025	...	5·3	14·5
167		Hastmoli ,,	13,213	...	4·9	15 3
168		Bidauli ,,	15,235	...	·3	32·8
169		Jhanjhána ,,	26,158	...	1·0	26·9
170		Shamli ,,	46,575	...	1·6	15·2
171		Titawi ,,	44,164	...	2·8	21·2
172		Bhopah ,,	42,363	...	5 1	14·8
173		Kairana ,,	21,086	...	2·4	19·2
174		Kandhla ,,	52,883	...	1·1	14 4
175		Burhana ,,	41,576	...	2 5	18·3
176		Shahpur ,,	44,885	...	1·4	25 8
177		Khatauli ,,	50,285	...	1·1	18·9
178		Jansath ,,	28,371	...	4·9	18 7
179		Miranpur ,,	28,876	...	5·2	21·2
180	Meerut.	Meerut T	51,991	...	·4	33·7
181		Chaprauli R	35,769	...	·1	27·9
182		Baraut ,,	84,332	...	...	12·0
183		Daha ,,	34,197	...	...	12·6
184		Binauli ,,	30,800	...	...	10 6
185		Sardhana ,,	69,932	...	...	8 5
186		Dauraia ,,	43,689	...	...	8·4
187		Mawana ,,	50 479	...	·1	9·5
188		Bahsumba ,,	17,752	...	...	14 5
189		Bugpat ,,	44,196	...	...	8·6
190		Khekurah ,,	39,883	...	·2	8 6
191		Bylani ,,	33,534	...	·5	11·7
192		Parichatgarh R.	45,303	...	...	13·4
193		Kamarud-din-nagar R.	9,613	...	·2	11·2
194		Loni R.	19,830	...	·4	15·3
195		Shahdara ,,	13,868	...	·2	12 7
196	Meerut—(*contd*).	Ghaziabad R.	38,880	...	...	12·8
197		Muradnagar ,,	43,710	...	...	11·0
198		Begamabad ,,	38,966	...	·1	13·7
199		Pilkhuwa ,,	26,478	...	...	4·1
200		Dhaulana ,,	43,547	...	...	4·5
201		Kharkhauda R.	38,896	...	...	11·3
202		Hapur ,,	66,334	...	...	10·9
203		Kithor ,,	32,699	...	...	9·1
204		Garhmuktesar R.	27,308	...	·5	11·0
205		Buxar ,,	23,794	...	...	17·8
206		Púth ,,	12,640	...	·2	30 3
207	Bulandshahr.	Bulandshahr T.	14,804	...	·4	34·7
208		Siyana R.	52,285	...	...	20·1
209		Golaothi ,,	48,830	...	·4	19·9
210		Járcha ,,	21,225	...	...	14·5
211		Dadri ,,	34,579	...	·3	14·8
212		Khanpur ,,	29,251	...	...	22·3
213		Sudder Sarai ,,	12,026	...	...	19·3
214		Surajpur ,,	17,740	...	·1	27·1
215		Aurangabad ,,	32,065	...	·4	15·6
216		Ahar ,,	17,694	...	1·3	24·1
217		Sikandrabad ,,	42,861	...	...	13·3
218		Kasna R.	17,981	...	·3	24·4
219		Jahángirabad ,,	42,889	...	·6	19·1
220		Anupshahr ,,	26,254	...	·5	20·1
221		Dankaur ,,	32,679	...	·1	16 5
222		Shikárpur ,,	34,246	...	·3	20·4
223		Jhajhar ,,	60,703	...	...	14·1
224		Khurja ,,	51,796	...	...	17·6
225		Dibai ,,	56,422	...	·3	21·6
226		Pahasu ,,	50,238	...	...	21·2
227		Ramghát ,,	16,908	...	·6	38·5
228		Urneau ,,	25 453	...	1·3	19·4
229		Jewar ,,	30,490	...	1·6	16·3
230	Aligarh.	Koil T.	58,490	...	1·6	11·0
231		Atrauli R.	46,762	...	1·9	19·9
232		Dadon ,,	50,363	·2	·1	15·2
233		Jawan ,,	35,961	...	·5	16·8
234		Somna ,,	29,540	...	·7	16·8
235		Chandaus ,,	36,466	0·1	·5	19·7
236		Narainpur ,,	22,641	...	1·4	24·3
237		Jattari & Tappal R.	47,798	...	3·5	12 8
238		Khair R.	40,383	...	1·2	17·1
239		Harduaganj ,,	26,152	...	1·9	13·4
240		Barla ,,	30,203	·1	1·5	20·7
241		Gonda ,,	43,617	...	·4	13·0
242		Akrabad ,,	58,914	...	1·0	15·8
243		Gangari ,,	26,142	...	1·3	15 0
244		Iglas ,,	66,568	...	1·1	14·8
245		Sasni ,,	44,995	...	1·2	8 2
246		Sikandra Rao ,,	55,004	...	...	24 2
247		Uksoli ,,	27,633	...	...	13·9
248		Salimpur ,,	15,415	·1	3·0	17·8
249		Hassan ,,	40,466	...	1·3	20 2
250		Hathrás ,,	64,413	...	·6	13·4
251		Mursan ,,	43,061	...	·4	10·9
252	Etah.	Etah T.	8,044	...	·4	21·7
253		Soraon R.	52,283	...	·3	19·3
254		Kasganj ,,	48,860	...	·3	20·0
255		Sahawar ,,	49,055	...	·2	12·4
256		Marehra ,,	43,351	...	·1	18·8
257		Kadirganj ,,	33,991	...	·5	16·7
258		Amanpur ,,	36,044	·1	·6	16·5
259		Patiali ,,	46,121	...	·1	23·1
260		Sirhpura ,,	39,807	...	·4	15·2
261		Nidhauli ,,	41,970	...	1·9	18·4
262		Dhemri ,,	50,725	...	·1	9·4
263		Sakit ,,	49,873	...	·2	19·1
264		Aliganj ,,	79,260	...	·1	14·8

Index to the Cholera, Small-pox, and Fever Maps of the North-Western Provinces and Oudh, showing ratio of deaths per 1,000 *of population from the Diseases during* 1876 *in each Circle*—(continued).

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living	Ratio of deaths from Fever per 1,000 living.
265	Muttra.	Muttra T ...	54,331	...	·8	16·1
266		Majhoi R ...	12,663	...	·1	13·6
267		Nohjhil ,, ...	46,677	...	·7	13·5
268		Kosi ,, ...	39,170	...	1·3	22 1
269		Shergarh ,, ...	18,426	...	7·9	24·3
270		Surir ,, ...	21,920	...	·3	20·5
271		Chata ,, ...	28,938	...	1 3	19·9
272		Barsana ,, ...	22,654	...	·7	11·6
273		Sahar ,, ...	28,620	...	3 3	18·3
274		Mat ,, ...	28,245	...	·9	17·6
275		Jait ,, ...	22,985	...	·5	13·9
276		Brindaban ,, ...	4,635	...	...	20·2
277		Rayah ,, ...	55,685	...	·1	14·5
278		Gobardhan ,, ...	20,412	...	·7	9·4
279		Aring ,, ...	25,559	...	...	22·2
280		Sahpaw ,, ...	29,637	...	·2	16 9
281		Sadabad ,, ...	75,252	...	...	15·7
282		Mahaban ,, ...	13,400	...	...	10·6
283		Baldeo ,, ...	74 761	...	...	15·2
284		Sonkh ,, ...	16,339	·3	...	10·5
285		Rasulpur ,, ...	12,438	...	·2	13·1
286	Farukhabad.	Farukhabad T ...	65,441	2·3	1·3	15·6
287		Kampil R ...	36,362	...	·2	18·4
288		Allahganj ,, ...	22,275	·1	·7	16·0
289		Kaimganj ,, ...	66,122	...	·2	19 0
290		Shamsabad ,, ...	36,979	...	·4	15·9
291		Aligarh R. ...	48,518	...	·1	19·4
292		Nawabganj ,, ...	25,192	...	·2	18·1
293		Muhammadabad R,	89,761	...	·6	17·7
294		Fatehgarh R ...	8,822	...	...	43·5
295		Kamalganj ,, ...	62,843	...	1·6	17·6
296		Chibramau ,, ...	58,213	...	·3	20·0
297		Gursahaiganj ,, ...	36,696	·1	·6	19·2
298		Jalalabad ,, ...	30,510	...	·6	15·9
299		Miran-ki-Sarai,, ...	69,285	·6	·8	11·8
300		Talgram ,, ...	16,447	...	·5	12·2
301		Saurikh ,, ...	65,529	...	·6	14·4
302		Tirwa ,, ...	67,474	...	·4	12 0
303		Thatia ,, ...	26,286	...	·9	14·9
304	Mainpuri.	Mainpuri T. ...	18,601	...	·7	35·9
305		Eka R. ...	62,064	...	...	16 6
306		Karauli ,, ...	46,561	...	...	19·7
307		Pharriah ,, ...	25,292	...	·8	12·0
308		Bhongaon ,, ...	67,760	...	...	14·7
309		Bewar ,, ...	43,691	...	·2	18·8
310		Uncha ,, ...	31,428	...	·2	16 9
311		Jasrána ,, ...	68.185	...	...	18·2
312		Ghiror ,, ...	48,479	...	...	21·0
313		Shikohabad ,, ...	47,266	...	...	19 2
314		Kishni ,, ...	54,541	...	·1	15·6
315		Karrah ,, ...	28 085	...	·1	20 1
316		Karhal ,, ...	41,911	...	...	18·3
317		Sirsaganj ,, ...	72,811	...	...	15 7
318		Barnahal ,, ...	30 096	...	·1	17 3
319	Agra.	Agra T. ...	122,433	...	·6	22·0
320		Ole R. ...	21,305	...	1·1	21·0
321		Farah ,, ...	34,448	...	·3	18·4
322		Runkuta ,, ...	22,279	...	...	10·7
323		Khandauli ,, ...	30,561	...	·2	9·7
324		Itmadpur ,, ...	62,627	...	·7	10·5
325		Narkhi ,, ...	39.449	...	1·0	13·7
326		Achnera ,, ...	30,787	...	...	15·9
327		Sikandra ,, ...	13,785	...	...	15·8
328		Hariparbat ,, ...	20,875	...	...	17·1
329		Itimad Daula ,, ...	21,244	...	2·0	13·3
330		Tajganj ,, ...	29,186	...	·1	8·7
331		Dohkhi ,, ...	25,823	...	·3	12·0
332		Firozabad ,, ...	56,711	...	·1	13·4
333		Fatehpur Sikri,, ...	36,097	...	·2	10·6
334	Agra—(*concld.*).	Karauli R. ...	29,502	...	...	13·4
335		Malpura ,, ...	40,000	...	·1	13·8
336		Rohta ,, ...	20,176	...	...	16·5
337		Kagarole ,, ...	30,165	...	...	12 4
338		Usra ,, ...	16,954	...	·1	13·6
339		Shamsabad ,, ...	32,574	...	...	9·6
340		Fatehabad ,, ...	37,978	...	...	11·0
341		Khairagarh ,, ...	29,045	...	...	14 6
342		Syean ,, ...	30.154	...	·1	13·1
343		Iradatnagár ,, ...	28,255	...	...	9·2
344		Nibhore ,, ...	26,741	·1	·2	12·6
345		Panahat ,, ...	35,206	...	...	14 2
346		Ratesar ,, ...	20,437	...	...	11·1
347		Bah ,, ...	44,961	...	·1	12 3
348		Huthkant ,, ...	16,401	...	·4	13·1
349		Kachora ,, ...	20,642	...	...	14·7
350		Jagner ,, ...	35,830	...	...	14 6
351		Jalesar ,, ...	62,154	...	·8	9·5
352		Ava ,, ...	32.297	...	·1	12·4
353		Aharan ,, ...	38,147	...	·6	12·8
354		Umargarh ,, ...	22,528	...	...	19·4
355	Etáwah.	Etáwah T. ...	30,549	·2	·5	10·7
356		Jaswantnagar R. ...	53,821	...	·2	18·9
357		Usrahar ,, ...	30,554	...	...	18·0
358		Airwa ,, ...	16,575	...	...	21·4
359		Bela ,, ...	35,538	...	...	19·6
360		Bidhuna ,, ...	30,570	...	·2	22·3
361		Harpura ,, ...	24,721	...	·1	20·0
362		Bhartna ,, ...	38,559	...	·2	24·3
363		Kuderkote ,, ...	21,571	...	...	15·6
364		Bukawar ,, ...	60,637	...	...	18·2
365		Chachúd R. ...	20,350	...	·7	21·3
366		Phaphund ,, ...	29,992	...	...	26·0
367		Kunchowsi ,, ...	35,987	...	·9	13·4
368		Sahail ,, ...	23,139	...	·3	20·6
369		Sehson ,, ...	25,706	...	·2	24·1
370		Ajitmal ,, ...	54,805	...	·2	21·6
371		Auriya ,, ...	30,146	...	·5	22·2
372	Lucknow.	Lucknow city ...	273,229	1·7	...	21·7
373		Lucknow cantonment.	18,932	·1	...	8·4
374		Lucknow R. ...	105,041	·3	...	12·3
375		Maliabad ,, ...	99,147	...	·6	11·6
376		Mohaulalganj ,, ...	89,872	5·3	...	15·7
377	Bara Banki.	Nawabganj and Bara Banki T. ...	14,489	3·4	...	3·3
378		Rudauli ,, ...	12,517	·1	1·1	10 3
379		Zaidpur ,, ...	10,680	0·2	1·0	16 9
380		Nawabganj R. ...	141,186	1·0	·3	11·1
381		Fatehpur ,, ...	109,590	·1	2·1	12·6
382		Ramnagar ,, ...	119,275	...	2·2	16 6
383		Haidargarh ,, ...	128,506	2·0	...	15·7
384						
385	Unao.	Purwa T. ...	10,880	...	...	25 0
386		Unao ,, ...	7,277	1·3	·1	22·9
387		Unao R. ...	104,474	·8	·8	16 8
388		Ajgain ,, ...	109,982	·8	...	14·5
389		Purwa ,, ...	70,476	2·1	·2	22·7
390		Morawan ,, ...	104,789	4·1	...	13·5
391		Safipur ,, ...	140,801	...	·8	17·7
392		Bangarmau ,, ...	112,009	...	1·1	21·0

Index to the Cholera, Small-pox, and Fever Maps of the North-Western Provinces and Oudh, showing the ratio of deaths per 1,000 *of population from the Diseases during* 1876 *in each Circle*—(continued).

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
393	Cawnpore.	Cawnpore T. ...	122,770	1·4	·4	18·3
394		Bilhaur R. ...	57,649	·4	·1	23·1
395		Kukwan „ ...	29,064	·1	·4	19·1
396		Rasulabad „ ...	93,383	·1	·1	18·5
397		Shiurájpur „ ...	47,664	·7	·1	28·8
398		Shiuli „ ...	51,281	2·2	...	22·6
399		Bithur „ ...	33,764	...	·5	30·1
400		Chowbeypur „ ...	15,109	1·1	·1	23·3
401		Mangalpur „ ...	27,719	...	·4	21·7
402		Derapur „ ...	49,744	·2	·1	17·6
403		Akbarpur „ ...	47,389	1·3	·2	24·8
404		Sikandara „ ..	50,815	...	·4	19·2
405		Sucheyndi „ ...	56,491	·7	·1	20·4
406		Maharajpur „ ...	55,662	·5	...	20·8
407		Bidhnu „ ...	25,139	·4	·3	22·9
408		Gajner „ ..	45,751	1·9	·1	21·2
409		Bhognipur „ ...	67,306	0·1	·3	20·1
410		Musanagar „ ...	27,862	...	...	18·7
411		Ghátampur „ ...	81,275	1·6	...	20·8
412		Sarh „ ...	29,411	·2	·1	23·8
413		Narwal „ ...	17,446	·8	·1	27·4
414		Sujatti „ ...	21,905	·9	·1	14·9
415	Fatehpur.	Fatehpur T. ...	19,879	2·7	·2	26·8
416		Aung R. ...	22,117	1·4	·1	17·0
417		Jahánabad „ ...	35,209	·7	·1	12·9
418		Kalianpur „ ...	23,692	2·8	·2	10·3
419		Khajuha „ ...	29,741	1·1	·2	10·7
420		Bindki „ ...	25,997	·5	·1	18·0
421		Malwa „ ...	28,704	4·8	·2	11·6
422		Amauli „ ...	28,922	·1	·2	19·3
423		Husainganj „ ...	48,376	1·3	·3	8·7
424		Jaffarganj „ ...	23,416	...	1·1	8·3
425		Thariaon „ ...	46,956	·8	...	7·7
426		Hathgaon „ ...	47,594	·7	·3	16·0
427		Gonti „ ...	20,639	·1	...	25·1
428		Lalauli „ ...	23,422	1·5	1·4	14·5
429		Ghazipur „ ...	38,878	3·1	·4	12·0
430		Khaga „ ...	36,668	2·4	·1	14·8
431		Asothar „ ...	18,123	·4	·4	16·9
432		Khakhrera „ ...	38,873	1·4	...	11·3
433		Kishenpur „ ...	27,026	·1	·1	16·8
434		Dhata „ ...	19,464	·3	·2	12·2
435	Jaunpur.	Jaunpur T. ...	23,327	·7	·1	27·6
436		Sarai Mohi-ud-din R	67,066	·9	...	9·2
437		Shahganj R. ...	36,003	3·1	·2	11·6
438		Katahan „ ...	50,107	...	·4	9·4
439		Badlapur „ ...	61,654	·1	...	11·6
440		Sarai Khoja „ ...	47,903	1·6	...	11·2
441		Baksha „ ...	60,490	·1	...	11·3
442		Sujanganj „ ...	70,716	...	...	14·1
443		Gulzarganj „ ...	35,204	1·1	·3	17·1
444		Kerakat „ ...	65,200	·1	...	10·3
445		Jalalpur „ ...	41,652	...	...	6·1
446		Mariahu „ ...	92,187	1·6	4	17·8
447		Machlishahr „ ...	36,398	·7	...	14·9
448		Mungra Badshapur R.	34,098	2·4	·3	14·8
449		Bhumneyaon „ ...	21,315	4·6	1·3	28·3
450		Chandwak „ ...	44,690	·1	...	14·3
451		Rampur „ ...	64,143	·6	·3	17·8
452	Hamirpur.	Hamírpur T. ...	6,765	4·5	·2	15·0
453		Kurára R. ...	14,814	2·4	·1	11·0
454		Sumerpur „ ...	34,901	2·7	·7	15·5
455		Lalpura „ ...	16,159	·4	1·6	23·4
456		Maudha „ ...	31,412	1·7	1·4	16·2
457		Sisolar „ ...	19,135	1·4	·9	16·8
458	Hamirpur—(*concld.*)	Jalalpur R. ...	13,809	·6	1·3	17·1
459		Bewar „ ...	17,362	....	1·1	23·3
460		Chandaut „ ...	13,088	...	2·8	2·4
461		Maskara „ ...	27,647	2·0	1·7	16·4
462		Islampur or Jurya R.	26,967	·2	5·0	15·5
463		Kharaila „ ...	5,019	...	2·7	16·7
464		Kabrai „ ...	20,491	1·1	1·4	12·6
465		Rath „ ..	44,393	...	5·5	15·7
466		Mahoba „ ...	25,227	4·6	4·5	13·5
467		Majgawan „ ...	15,157	...	6·1	17·6
468		Panwari „ ...	35,327	1·8	2·5	15·8
469		Kulpahar „ ...	30,027	1·0	8·0	17·0
470		Srinagar „ ...	20,764	4·0	6·6	21·0
471		Kashipur „ ...	12,331	...	5·4	18·6
472		Ajnar „ ...	28,990	...	6·9	13·3
473	Banda.	Bánda T. ...	26,443	·3	1·8	14·0
474		Pailani R. ...	48,141	2·3	1·2	13·7
475		Marka „ ...	18,061	·8	·4	17·1
476		Tindwari „ ...	29,889	4·3	2·5	13·9
477		Paprenda „ ...	24,493	3·7	1·8	9·5
478		Khannan „ ...	25,645	1·5	1·6	13·1
479		Baberu „ ...	46,267	·9	2·2	16·2
480		Kamasin „ ...	36,334	...	·3	17·5
481		Murwal „ ...	16,532	·5	·2	11·9
482		Matsundh „ ...	16,567	1·6	·4	15·6
483		Bisenda „ ...	22,982	·3	1·7	21·2
484		Oran „ ...	18,887	...	·9	17·6
485		Rajapur „ ...	29,963	·1	·1	9·2
486		Karhand „ ...	12,918	3·5	1·0	16·2
487		Pahari „ ...	34,468	...	...	7·7
488		Girwan „ ...	21,741	·8	2·1	20·4
489		Mau „ ...	34,305	·2	...	19·3
490		Badausa „ ...	32,814	·2	·7	17·6
491		Bhaunri „ ...	30,930	...	...	13·0
492		Pangarah „ ...	21,792	·4	·8	13·4
493		Karwi „ ...	30,835	...	·1	10·5
494		Bargarh „ ...	9,679	·4	·1	17·9
495		Manikpur „ ...	17,200	...	...	19·7
496		Kalinjar „ ...	32,588	...	...	10·0
497	Allahabad.	Allahabád city T....	64,339	1·0	·5	11·4
498		Mau Aimah R. ...	50,090	·1	1·4	20·2
499		Karra „ ...	27,797	·7	...	18·9
500		Saini „ ...	64,160	1·5	...	9·0
501		Soraon „ ...	65,769	1·5	·3	8·2
502		Sikandara „ ...	40,373	1·1	·3	17·2
503		Kohkheraj „ ...	21,048	1·2	·1	16·9
504		Phulpur „ ...	77,370	2·8	·2	17·0
505		Nawabganj „ ...	61,896	1·0	...	14·1
506		Muratganj „ ...	36,920	·8	...	9·5
507		Manjhanpur „ R.	25,785	1·4	...	17·6
508		Sarai Mufti Tikri R	42,547	1·0	...	7·2
509		Karari R. ...	34,115	·4	...	8·3
510		Jhusi „ ...	32,154	·8	·1	7·2
511		Hanumanganj „ ...	42,727	2·2	..	14·3
512		Pachchim Sarira R.	43,178	·8	...	13·0
513		Handia R. ...	64,942	1·5	·2	19·0
514		Sarai Akil „ ...	64,823	·1	...	6·8
515		Barote „ ...	26,359	1·5	·7	17·7
516		Gurpur „ ...	41,924	1·3	1·3	14·1
517		Kurchna „ ...	78,951	1·1	·2	12·8
518		Sarsa „ ...	30,440	1·7	·3	9·6
519		Barah „ ...	48,861	1·1	·2	13·1
520		Shiurajpur „ ...	12,380	1·6	...	15·9
521		Meja „ ...	39,245	4·5	·2	22·0
522		Mara „ ...	33,927	1·8	...	10·9
523		Kheri „ ...	24,426	5·6	·1	5·9
524		Koraon „ ...	43,753	2·5	·7	13·2

Index to the Cholera, Small-pox, and Fever Maps of the North-Western Provinces and Oudh, showing ratio of deaths per 1,000 *of population from the Diseases during* 1876 *in each Circle*—(continued).

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
525	Rae Bareli.	Rae Bareli T. ...	11,544	2·9	·3	18·5
526		Rae Bareli R. ...	107,260	1·3	...	17·9
527		Bachhráwan ,, ...	94,226	11·5	...	15·1
528		Dalmau ,, ...	145,088	1·4	...	5·2
529		Sareni ,, ...	65,229	15·0	...	11·2
530		Salon ,, ...	120 3·2	4·6	...	17·3
531		Mohanganj ,, ...	110,674	6·6	...	10·7
532	Sultanpur.	Sultanpur T. ...	5,708	1·0	·3	13·8
533		Sultanpur R. ...	104,328	1·9	·3	9 3
534		Jagdíspur ,, ...	129,162	6·0	·1	8·9
535	Partabgarh.	Partabgarh and Bela T.	6,240	...	·6	16·3
536		Patti R. ...	107,131	·1	·1	17·0
537	Bahraich.	Bahraich T. ...	18,889	6·4	...	15·3
538		Bahraich R. ...	81,205	1·4	·2	18·0
539		Nánpára ,, ...	143,382	3·5	·4	14·7
540		Ekauna ,, ...	44,138	3·6	·2	17·2
541		Bhinga ,, ...	126,191	4·2	...	14·9
542	Gonda.	Gonda T. ...	11,966	12·2	2·9	17·8
543		Balrámpur ,, ...	13,878	5·1	...	8·0
544		Gonda R. ...	160,137	5·0	·1	10·5
545		Utraula ,, ...	95,136	5·2	·2	6·7
546		Tulsipur ,, ...	90,679	8·0	·2	13·7
547		Balrámpur ,, ...	137,562	4·9	...	5·9
548	Fyzabad.	Fyzabad T. ...	33,217	2·7	·6	27·0
549		Tanda & Musha T.	13,543	·8	1·7	16·7
550		Ajudhia T. ...	9.949	...	1·2	52·5
551		Fyzabad cant. ...	4,587	...	...	5·0
552	Gorakhpur.	Gorakhpur T. ...	51,117	...	·2	21·2
553		Paisia R. ...	27,909	1·1	·8	22·2
554		Nichlaul ,, ...	29,303	...	...	25·6
555		Simra ,, ...	67,765	·5	1·1	12·1
556		Maharajganj ,, ...	63,089	...	...	19·4
557		Kothibhar ,, ...	69.242	·3	...	17·2
558		Ragauli ,, ...	50,370	·3	·2	10·8
559		Panira ,, ...	18 479	...	·9	13·6
560		Baraitcha ,, ...	39,684	·9	·2	15·7
561		Padrauna ,, ...	89,844	1·0	·1	15·3
562		Ramkala ,, ...	38,529	...	·2	29 8
563		Mansurganj ,, ...	56,759	1	·2	18·9
564		Pipraich ,, ...	52.690	...	·1	15·0
565		Hata ,, ...	79,992	...	·2	16·3
566		Kasia ,, ...	70,531	1·0	·1	18·4
567		Bishunpur ,, ...	33,243	·6	·2	19·0
568		Turya Sujan ,, ...	53.214	·3	...	24·1
569		Suphi or Kazipur ...	69,570	·4	·2	15·2
570		Turkulwa ,, ...	83,590	·1	·2	11·7
571		Binayakor Chowra R.	36,980	·1	·1	14·2
572		Suhjunwa R. ...	48,425	1·5	1·8	17·8
573		Rudrapur ,, ...	61,623	1·2	·4	13 8
574		Burhi ,, ...	36,210	·2	·6	15·0
575		Bánsgaon ,, ...	107,095	1·1	·7	8·3
576		Deoria ,, ...	70,077	·5	...	11·0
577		Rudarpur ,, ...	66,675	...	...	17·1
578		Belghat ,, ...	61,163	·1	·4	16·4
579		Gola ,, ...	57,256	·7	·2	14·6
580		Barhalganj ,, ...	77,195	·8	·4	13·5
581		Khunkhundu ,, ...	52,988	·5	...	21·5
582		Barhaj ,, ...	42,558	·2	·3	10·1
583		Ghati or Khampur R.	95,464	·3	·3	10·4
584		Salímpur or Sárh R.	52,273	...	·7	17·1

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
585	Basti.	Dehburroa R. ...	25,917	...	...	19·5
586		Chilliha ,, ,,	77,352	...	·3	14·5
587		Tharauli ,, ...	49,247	·1	·5	14·0
588		Lowtan ,, ...	30,286	·5	·6	9·8
589		Belwa ,, ...	45,458	7·4	·8	11·5
590		Mesrowlia ,, ...	38,605	...	·4	13·4
591		Domariaganj ,, ...	97,912	1·6	·7	11·4
592		Bánsi ,, ...	81,927	·4	...	11·6
593		Chuppiah ,, ...	51,756	5·6	1·0	16·7
594		Rudhauli ,, ...	49,503	1·2	·4	14·6
595		Majhra ,, ...	52.911	·2	·3	11·9
596		Kothia ,, ...	49,780	1·0	·8	12·1
597		Dudhowra ,, ...	58,767	·2	1·7	15·3
598		Minhdawal ,, ...	61,454	·6	·5	13·1
599		Bangawan ,, ...	61,704	·4	1·2	14·0
600		Paikaulia ,, ...	58,743	3 9	·8	15·4
601		Khalilabad ,, ...	58,686	·3	·9	16·6
602		Amorha ,, ...	88.839	1·7	·6	11·7
603		Captainganj ,, ...	95,935	1·9	·9	13·1
604		Gaighat ,, ...	78,913	·8	·7	17·4
605		Mahuli ,, ...	54,878	·1	...	18·5
606		Chapraghát ,, ...	55,056	·5	2	13·2
607	Azamgarh.	Azamgarh T. ...	15,980	...	...	23·2
608		Atraulia R. ...	68,419	·2	·1	11·9
609		Pawai ,, ...	37,220	·6	...	11·0
610		Ahraulaghat ,, ...	68,075	...	...	12·6
611		Mádhoban ,, ...	68,610	1·1	·2	16·4
612		Sagri ,, ...	73,504	·2	...	9·8
613		Ghosi ,, ...	51,501	·6	...	11·6
614		Sikandarpur ,, ...	62,335	1·5	...	15·7
615		Nizámabad ,, ...	54,253	·2	...	12·1
616		Muhammadabad R.	91,190	·8	...	16·1
617		Saraimir R. ...	49,741	·6	...	9·2
618		Didárganj ,, ...	67,652	·8	...	9·7
619		Nagara ,, ...	66,526	2·1	·2	14·0
620		Mau ,, ...	69,425	1·6	·1	8·0
621		Gambhirpur ,, ...	60,108	2·9	...	14·1
622		Chiriákot ,, ...	67,329	1·0	·2	14·4
623		Mehnagar ,, ...	45,673	·2	...	11·2
624		Deogaon ,, ...	61,220	5·4	·3	13·8
625	Ghazipur.	Gházipur T. ...	38,853	4·5	1·2	22·7
626		Sayyidpur R. ...	74,218	1·7	...	22·6
627		Sadat ,, ...	31,977	3·3	...	17·7
628		Shadiabad ,, ...	67,641	1·5	·1	15·7
629		Nandganj ,, ...	39,705	2·7	·3	21·8
630		Dhanapur ,, ...	43,964	1·8	·5	23·5
631		Karanda ,, ...	26,367	3·2	·8	18·9
632		Murdeh ,, ...	33,695	4·4	1·7	19·5
633		Barnu ,, ...	49,155	·4	·4	17·3
634		Zamániah ,, ...	66,297	2·3	·1	16·6
635		Gahmer ,, ...	77,062	·7	...	19·1
636		Kassimabad ,, ...	61,054	4.9	1·2	16·8
637		Muhammadabad R.	91,674	2·0	·4	14·2
638		Korantadih R. ...	31,091	1·1	...	32·0
639		Rasra ,, ...	44,767	2·4	·2	25·5
640		Koron ,, ...	59,145	2·6	·3	18·5
641		Gurwar ,, ...	56,312	2·1	·9	19·7
642		Bansdih ,, ...	72,681	1·1	·1	22·7
643		Ballia ,, ...	86,616	1·4	...	16·5
644		Raoti ,, ...	31,769	5·3	·2	32·5
645		Haldí ,, ...	46,633	·3	...	23·6
646		Bahariah ,, ...	58,703	3·5	·1	21·3
647	Benares.	Benares T. ...	201,371	3·3	·4	11·1
648		Phulpur R. ...	44,173	1·7	·2	22·7
649		Cholapur ,, ...	53,893	·4	·1	4·3
650		Chowbeypur ,, ...	51,846	1·5	·2	26·9
651		Bulwah ,, ...	37,796	1·9	·3	15·0
652		Baragoan ,, ...	49,793	2·0	·1	10 6
653		Sikraul ,, ...	43,018	1·6	·3	22·2

Index to the Cholera, Small-pox, and Fever Maps of the North-Western Provinces and Oudh, showing ratio of deaths per 1,000 *of population from the Diseases during* 1876 *in each Circle*—(concluded).

Number.	District.	Name of Circle.	Population.	Ratio of deaths from Cholera per 1,000 living.	Ratio of deaths from Small-pox per 1,000 living.	Ratio of deaths from Fever per 1,000 living.
654	Benares (concld.)	Sakaldiha R. ...	38,405	3·2	·3	23·0
655		Sayyidraja ,, ...	47,143	6·3	·2	14·4
656		Mirzamurad ,, ...	89,765	·5	...	13·9
657		Rohenia ,, ...	38,562	1·0	·1	20·1
658		Ramnagar ,, ...	11,682	7·1	·8	25·9
659		Alinagar ,, ...	27,720	1·9	·2	18 1
660		Chandauli ,, ...	41,492	1·8	·4	18·3
661	Mirzapur	Mirzapur T. ...	69,663	2·0	·9	19·4
662		Suryawa R. ...	43,399	1·7	·9	18 1
663		Bhadohi ,, ...	79,014	·7	1·3	15·2
664		Digh ,, ...	22,397	1·9	·4	25·9
665		Gopiganj ,, ...	89,627	1·7	·8	23·3
666		Kataka ,, ...	19,305	1·7	1·3	27·1
667		Katchwa ,, ...	27,950	2·0	·8	19 6
668		Bindháchal ,, ...	64,063	1·5	·4	17·1
669		Chunar ,, ...	92,909	2·9	·3	16·7
670		Lalganj ,, ...	37,033	2·1	·2	15·5
671		Marhían ,, ...	13,233	3·0	...	22·0
672		Ahirawara ,, ...	84,620	5·1	·9	19·8
673		Drummondganj R.	15,453	1·7	3·5	16·6
674		Hullia R. ...	22,334	3·8	2·4	26·3
675		Ghorawal ,, ...	26,067	4·2	1·2	33·9
676		Shahganj ,, ...	19,352	2·6	1·4	36·5
677		Robertsganj ,, ...	27,059	16·8	3·0	29·2
678		Punnuganj ,, ...	37,045	27·5	1·2	22·2
679		Kon ,, ...	8,610	...	·4	17·7
680		Khairana ,, ...	21,845	·4	·2	18·4
681		Chopan ,, ...	17,928	2·5	·5	20·1
682	Jalaun	Jalaun T. ...	10,197	...	...	17·0
683		Kuthaund R. ...	22,192	...	·4	26·4
684		Hadrakh ,, ...	17,776	...	...	16·9
685		Gohar ,, ...	28,588	...	·2	13·7
686		Madhogarh ,, ...	13,306	...	...	12·7
687	Jalaun—(concld.)	Bangra R. ...	38,598	...	·1	17·8
688		Dumras ,, ...	7,773	...	·1	15·1
689		Nipania ,, ...	5,958	...	·1	27·6
690		Charkhi ,, ...	18,340	·1	·4	18·4
691		Bubina ,, ...	6,294	...	·3	28·7
692		Itaura ,, ...	9,155	1·2	·4	25 2
693		Ata ,, ...	16,827	·2	·3	13·2
694		Orai ,, ...	58,056	...	...	10·6
695		Mohana ,, ...	9,992	...	·8	21·2
696		Sayyidnagar ,, ...	8,806	...	2·6	17·9
697		Ait ,, ...	15,227	...	2·7	28·6
698		Kunch ,, ...	26,148	...	1·4	14·8
699		Sonaa ,, ...	6,388	...	·9	31·1
700		Kalia ,, ...	14,565	...	1·7	22·4
701	Jhansi	New Jhánsi T. ...	1,596	...	1·2	17·5
702		Punch R. ...	8,166	...	3·9	23·2
703		Moth ,, ...	17,267	...	1·4	17·8
704		Kakarbai ,, ...	11,836	...	6·1	19·9
705		Garotha ,, ...	22,219	...	4·5	24·0
706		Baghera ,, ...	15,201	...	2·7	20·0
707		Chirgaon ,, ...	23,126	...	4·1	24·6
708		Barágoan ,, ...	16,034	...	·6	17·4
709		Pandwáha ,, ...	22,348	...	6·9	15·4
710		Auldan ,, ...	11,660	...	7·8	13 2
711		Burwa Sangor ,, ...	12,024	...	3·2	16·4
712		Ghat Lachora ,, ...	8,874	...	7·7	24·1
713		Seaoryí ,, ...	11,809	...	12 7	16·5
714		Mau Ranipur ,, ...	8,322	...	4·0	9·6
715		Babina ,, ...	12,358	...	11·2	17·4
716		Bonda ,, ...	5,163	...	16 8	21·4
717		Churara ,, ...	17,402	...	10·6	27·2
718		Nathi Khera ,, ...	...	...	...	...
719		Baidora ,, ...	...	...	...	...
720		Bhariasra ...	...	...	...	...
721		Gursarsi ...	...	...	...	...

SECTION V.

GENERAL HISTORY OF VACCINATION.

63. For most of the facts contained in this section, which appears now for the first time in my annual report, I depend entirely upon the returns of vaccination for the season 1876-77 published by the Superintendent-General of Vaccination.

64. The work of vaccination, by far the most important sanitary endeavour in course of effectual working in the province, is controlled and carried out by an establishment separate entirely from the office of Sanitary Commissioner.

Yet, as Sanitary Commissioner, I have seen much of the work effected during the past ten years, and have great reason to think very highly of its reality, and consequent good results. The true test of efficiency no doubt would be the absence of small-pox as a cause of death in the mortuary tables—a result not yet realized. But such evidence of great success cannot be expected so long as the establishment available cannot possibly, by reason of inefficient means, cope, in numbers of vaccinations performed yearly, with the number of births which must occur yearly to recruit a population of 31,000,000 souls, living in all probability to the average age of 31 years.

The figures of population are, I believe, an actual expression of fact. We have no evidence of any gradual decrease of population, and even if the duration of life is raised to the European average of 35 years, it must follow that nearly 1,000,000 children are born every year.

65. The vaccination department during the year 1876 gave employment to 517 native vaccinators, whose labours were controlled by 36 native superintendents, the whole being in charge of five native deputy superintendents, three English superintendents, and one superintendent-general; the last four being medical officers of great experience in the matter of vaccination.

During 1875 the number of vaccinators employed was 453 only, so that a very considerable increase in vaccination power is apparent for the year 1876.

The cost of this establishment for 1876 was Rs. 1,26,237, of which sum Rs. 1,09,533 was paid by Government, the balance being paid by municipalities, local funds, and native chiefs or landlords.

The total number of successful vaccinations performed in 1876 was 515,475; the average cost of each 3 annas 11 pies, about 6*d.* in English money.

66. The supply of vaccine virus, on which I need scarcely say the success of the department's labours depends, was obtained for distribution as usual in the form of 10,108 tubes of lymph and 4,072 vesicle crusts from the Himalayan country of Kumaun, this quantity being amply sufficient to meet all demands.

It may be well if I explain here that in the cool Himalayan climate the work of vaccination can proceed throughout the year, whilst in the hot climate of the plains the work can be effectually performed only during the five cooler months—November, December, January, February, and March. I cannot say why the vaccine virus is not potent to produce the vaccine disease in the hot months in the plains; but experience has shown that such is the case I believe. It is unfortunate that the virus of small-pox has not a like peculiarity. With regard to that disease, on the contrary, its time of greatest activity is during the hot months of the year, and it is during the hot months that I have seen children suffering from small-pox after inoculation.

67. The impossibility of continuing the work of vaccination in the plains throughout the year is the greatest of the causes hindering the complete vaccination of the infant population. But for its existence, there can be no reasonable doubt that the existing establishment of vaccinators would suffice to effect a perfect protection of the whole population in a very few years. Another hindering cause to complete success is the rooted belief amongst the lower orders of Hindus that, by endeavouring to guard their children against the attack of small-pox disease, they court the anger of the goddess Devi, very powerful to injure them in many ways. The prevalent belief is that good comes out of the old established course of accepting the visitation meekly, nursing the sick child tenderly, and, by thank-offering, acknowledging its recovery through the mercy of Devi.

I have seen thousands of people assembled at the appointed time and place to present thank-offerings at a favoured shrine, and have noticed the substantial nature of the offerings. Many heads of families presenting a rupee, or a young pig, calf, or fowl; the father holding the recovered child forward at the time of offering for especial recognition of the unseen deity.

68. A considerable period of time must elapse, and much earnest work must be done by the vaccination department, before the rooted beliefs of centuries, with their vested interests, can quite wither away. But I know as the result of observation and of conversation with the better classes of the community, especially the Muhammadan people, that vaccination is becoming acceptable to them and even desirable. This is good proof of the commencement of decay in the old beliefs, and the time may not be far off when the head of a family would rather give his thank-offering to the substantial vaccinator in return for certain benefit conferred, than offer it to the unseen goddess. Whenever that spirit prevails the success of vaccination will be ensured; the expenditure from public funds may then sink to the necessary cost of maintaining the lymph depôts on the mountain ranges.

69. It will be well in this my first annual history of vaccination to record the results achieved by the department for the past ten years as regards primary vaccinations successfully performed. The following table will provide the necessary information :—

Successful primary vaccinations of each year.

1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
198,317	266,587	237,298	242,614	261,914	328,244	347,143	359,847	409,717	515,475

The total successful operations for the ten years is 3,162,150, the probable number of children born during that period being 10,000,000. The difference is amply sufficient to account for the continued prevalence of small-pox, though it makes very little difference as to number of persons now living who are likely to suffer from that disease. For it may be laid down as a sufficiently reliable rule that all of the survivors of the 10,000,000 children have either been vaccinated or have had small-pox.

The tax of death paid by the unprotected portion of this rising generation is thus recorded in the mortuary tables :—

Deaths from small-pox in each year.

1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
39,800	29,900	90,700	23,500	38,400	30,000	97,000	93,200	25,800	35,174

The total of deaths is 503,474. It is not quite right to assume that all these were deaths of children, because certainly some adults die in every year from this cause, but their total number is probably infinitesimal as compared with the total of infant deaths. This I say from actual experience, having seen many village populations whilst small-pox prevailed amongst them as an epidemic, children being invariably the only sufferers.

Viewed in any light, I believe the figures testify truthfully to the fact that a great army of children has passed out of the population from this cause during the past ten years: passed away with infinite woe and suffering, of which figures can give no account.

70. These facts being undeniable, the thought that the preventive means lives and flourishes amongst the people is very comforting. The table sufficiently shows how the good work of the department has progressively increased, until, in 1876, it may be safely concluded that fully one-half the infant population was protected. This satisfactory progress is due entirely to the wisdom of the controlling authorities in selecting individuals of high caste and good character for vaccinators, in labouring earnestly for the liberal supply of good lymph, and in carefully scrutinizing the resulting work, to the prevention of imperfect or pretended vaccinations.

Of all these praiseworthy endeavours, the last is, if anything, most important. I know that in years previous to those of the table, great doubts fell upon the correctness of the returns of cases successfully vaccinated. I think it is certain that many children who had to their parent's belief been successfully vaccinated died afterwards of small-pox; for such complaint has been made to me by heads of families in village populations, and even by Government officials, on several occasions during my journeys of inspection of the past ten years. I should add that I have seen many families of vaccinated children who have never had small-pox. But amongst a population living habitually so isolated as the village communities of this great country do, the uniform reality of the vaccination effected is essential to success. A quite uneducated people can, in so new a matter, judge only by observed results, for the history and results of vaccination are quite nothingness to them.

71. I have reason to think, as the result of recent experience, that the power of generally good results is waxing strong amongst the people, and I trust this great endeavour to prevent death may not lack in progress until the full tale of about 1,000,000 successful cases is annually recorded.

The history of results in Kumaun and Garhwál, Tarái and Dehra Dún, where, as the result of full protection to the infant population, small-pox, which formerly prevailed in average force, is now almost unknown, witnesses to the fact that vaccination is potent to protect an Eastern population; and I think the labours of the department are beginning to tell favourably upon the great plains population. The figures of mortality from small-pox in some measure support this view. For the ratio of deaths from this cause has never in any subsequent year reached the alarming figures of 1865, when 107,600 deaths were recorded, and the record of deaths of the past two years witness in favour of a decreasing mortality from small-pox.

72. I think it may serve a good purpose if I try to point out where, in the province, vaccination is most neglected. For this purpose it is necessary to fix a standard of comparison. I take it that the probable birth ratio cannot be less than the probable death ratio, for in England and Wales the births are one-half more numerous than the deaths, or as 34 is to 22; and it may be assumed, with a great approach to truth, that until the ratio of primary vaccinations effected in any year approaches to the birth ratio, the population cannot be protected.

A district table for 1876 prepared on this basis assumes the following aspect :—

District.	Population.	Probable least annual number of births.	Number of successful primary vaccinations in 1876.	Percentage of vaccinations to births.
Kumaun	432,888	13,964	23,894	171·1
Garhwál	310,282	10,009	25,364	253·4
Tarái	185,647	5,988	6,697	111·8
Bijnor	737,152	23,779	20,967	88·2
Moradabad	1,122,131	36,198	21,179	58·5
Bareilly	1,506,801	48,606	26,507	54·5
Sháhjahánpur	949,471	30,628	15,935	52·0
Budaun	934,348	30,140	19,637	65·1
Dehra Dún	115,711	3,732	3,665	98·2
Saháranpur	883,782	28,509	24,659	86·4
Muzaffarnagar	690,082	22,261	13,052	58·6
Meerut	1,273,914	41,094	34,975	85·1
Bulandshahr	936,593	30,213	13,776	45·6
Aligarh	1,073,108	34,616	22,467	65·2
Etah	703,485	22,693	7,461	32·8
Muttra	729,580	23,532	15,894	67·5
Farukhabad	918,748	29,637	9,506	32·1
Mainpuri	765,783	24,702	8,656	35·0
Agra	1,251,959	40,386	15,999	39·6
Etáwah	668,581	21,564	9,684	44·9
Cawnpore	1,155,439	37,272	23,019	61·8
Fatehpur	663,815	21,413	8,518	39·7
Jaunpur	1,025,869	33,093	7,683	23·2
Hamirpur	529,187	17,069	8,131	47·6
Bánda	697,611	22,503	7,141	31·7
Allahabad	1,394,245	44,976	6,733	14·9
Gorakhpur	2,019,350	65,140	19,470	29·9
Basti	1,472,994	47,516	9,456	19·9
Azamgarh	1,531,410	49,400	12,121	24·5
Gházipur	1,345,401	43,400	17,343	39·9
Benares	793,699	25,603	12,078	47·1
Mirzapur	1,015,293	32,751	9,735	29·7
Jalaun	404,384	13,045	12,261	94·0
Jhánsi	317,735	10,249	6,935	67·7
Lalitpur	212,628	6,859	5,533	80·6
Total	30,769,056	992,550	506,130	51·0

73. The table is instructive from several points of view. It shows, for example, by reference to the results as regards the four districts of acknowledged perfect protection that, in all probability, the assumed birth ratio of the table is considerably understated. These districts are Kumaun, Garhwál, Tarái, and Dehra Dún. If it should be true in this province, as in England and Wales, that the births are one-half more numerous than the deaths, then for 1876 the births in those districts would be 50,539, the primary vaccinations effected 59,620, the resulting ratio 117·8 per cent.

If that should be the correct standard of comparison, as expressing the results amongst a perfectly protected population, then, as yet, the result for the province is less satisfactory in reality than the ratio of the table would demark. But the practical value of the table lies in the view it affords of the success as yet achieved in the districts of the province separately, and the opportunity thus provided for determining where increased effort is necessary.

74. The provincial average is 51·0 per cent. of vaccinations to least possible births, and I think that in any district for which results appear below that average an increase of effort is urgently demanded. The table shows which these districts are, and it also shows that in four districts—Allahabad, Basti, Azamgarh, and Gorakhpur—progress in this matter is especially backward.

75. The vaccination returns ordered in Resolution No. 86, dated 9th May, 1877, of the Government of India in the Home Department, may be found in the appendix.

SECTION VI.

SANITARY WORKS—CIVIL.

76. The principal sanitary works or improvements which have been effected during the year 1876 may be described as follows. I have endeavoured to condense the statement to the utmost possible extent, and have mentioned thus separately only works of some importance. In reality works of this character are progressing in every important centre of population throughout the province.

77. Throughout the district of *Kumaun* a very earnest endeavour has been made to improve the sanitary condition of the towns and villages, and especially to bring into general use the custom of providing separate accommodation for the cattle. In late years the plan has been to lodge the cattle in the small lower rooms of the dwelling-houses. This is believed to have been a cause of disease, and is to be discontinued so soon as separate cow-houses can be provided. As will appear hereafter, I have had ample opportunity for noticing the progress of this endeavour, and have noticed a very general obedience to the request of the authorities in regard to this matter. New cow-houses of substantial character being in course of construction in a very considerable number of villages, and especially in every village where contagious disease has lately prevailed.

In *Garhwál*, the sister district of Kumaun, a like endeavour has been persistently made. Village sites in all parts of the district have been thoroughly cleansed, excessive vegetation has been destroyed, and the cattle have been removed from the dwelling-houses.

In Tárai some of the largest and most unhealthy swamps have been drained. Village wells in which the water had become shallow have been deepened; and much work having for aim the improved sanitary aspect of village sites generally has been effected. In the principal town (Káshipur) unwholesome excavations in the town site have been filled up with earth, and in Jaspur town the surface of the public thoroughfares has been consolidated.

78. In *Bareilly* a new scheme for the improved drainage of Philibhít town is in course of preparation.

The wells of the Bareilly city have been cleaned, and a new slaughter-house built—a very necessary improvement, as many cattle are slaughtered for food in this important Muhammadan city.

In *Sháhjahánpur* the principal improvements have been effected in Sháhjahánpur city, especially for the improved drainage of the site, for which purpose works costing about Rs. 7,172 were effected. Public thoroughfares were widened and consolidated, and two new public retiring places provided at a cost of Rs. 4,740.

In *Budaun* improvements have been effected in all the important towns, especially by raising and consolidating the roadways and by filling up unwholesome excavations.

79. In *Saháránpur* the improvements worthy of separate mention have been effected in the following municipalities:—In Saháránpur city Rs. 10,358 have been expended in sanitary improvements during the year, principally on account of the following works,—Three new public latrines in course of completion, the making of a wide roadway or boulevard to skirt the Craigie Nálá, the improved drainage and paving of the city site in several places, the making of a new road with causeway across low land, being one of the principal entrance ways to the town, levelling old brick-kiln heaps for the improvement of the surrounding surface. In Deoband an important drainage channel has been completed.

In Hardwár Rs. 4,145 have been expended for the levelling of an unwholesome water-hole in the town site, and in paving and draining the public ways.

In Rámpur improvements have been effected for the drainage of the town site.

In all the remaining municipalities money has been spent for the consolidation and drainage of the public ways and town site generally. At Roorkee a town garden has been laid out.

In the *Meerut* district the great work of sanitary improvement has been the continuance and advancement of the drainage cuttings planned by the Irrigation Department for the more perfect drainage of the Upper Doab country. These cuttings are mentioned by name at page 54 of my report for 1875, and for the past four years they have been more and more effectual in removing a vast quantity of water from the lands they traverse.

The good effects of these works are witnessed to by the improving death ratios of the Meerut district, which for the four years—1873—1874, 1875, and 1876—have been 25·83, 26·82, 26·34, and 15·52 per 1,000 of population. I have good reason to think the last is an understatement, the result of imperfect registration. But I think there can be no doubt that a great decrease in mortality has characterized the four years mentioned as compared with the mortality of the two preceding years 1871 and 1872, when the ratios were 29·07 and 35·55.

The scheme for the drainage of the Meerut city and cantonment site proper has been well advanced under Mr. Howe's superintendence. The resident Magistrate has recorded the opinion that, great benefit to the public health resulted from the only partial working of this scheme, in decreasing surface moisture during the rains of 1876. The results of the local mortuary registration uphold this view. In 1875 the ratio of deaths in Meerut city was 43·66, in 1876 it was 35·68.

The important sanitary improvement to the Meerut neighbourhood, mentioned in my report of 1875, and described as the filling up of unwholesome water holes, has been perfected by the grassing of the sloping bank of the remaining tank and planting its margins with trees.

The low lying part of cantonments at Meerut towards Bagsár Kherá has been drained by means of two cuttings, and is to be further improved.

At Sirdhana a very foul and offensive pond has been in great part filled up, and a valuable piece of land thus acquired, the rent of which will increase the municipal income considerably. This form of improvement cannot be too much praised. Its necessity from a sanitary point of view may be seen by reference to paras. 135 and 136 of my report for 1872, and I mention it prominently here in hopes that the force of example may lead to like results elsewhere. No form of sanitary improvement, within or around a town site, will produce more satisfactory results than that of reclaiming unnecessary excavations to a plane surface of culturable land.

In Kutana work for improved sanitary aspect has been active, especially in the making of the new bazaar roadway, in straightening the main way, and in paving the lesser ways.

In Dhauláná, an important sanitary work, consisting in filling up the ragged excavations which surround the town, has been so far advanced that the surface has been entirely reclaimed on three sides of the town.

In Dásná, ponds in and near the town have been filled up, and progress has been made in filling up a large excavation which borders the town to the south. This town is bordered by huge ponds both on the north and south sides, and a great amount of stagnant water collects about the site in the rains. A drainage cutting was made during the year in the hope of decreasing this collection of water in future years, and eventually those ponds are to be filled up, at least to some distance from the houses. Another admirable endeavour for sanitary improvement.

At Begámábád unwholesome ponds have been filled up, and this town has been benefitted by drainage cuttings.

At Farukhnagar great improvement has been effected, especially by the raising and consolidating of the long main way through the town.

In short, I may fairly say, that every important centre of population in the district has benefited in some degree from the energy and strong common sense of Mr. Webster, the Magistrate, whom I have known for ten years as an earnest sanitary improver wherever his authority stretched.

In *Bulandshahr* the principal work effected has been the further clearing out of the Káli Naddi. This important work has been proceeding for the past three years, and is now nearly completed, with the result, in the opinion of the local Civil Surgeon, of marked improvement in the drainage of the surrounding country. The important Khurja drainage cutting has been nearly completed, to, it is believed, the generally improved state of the public health of the Khurja part of the district.

In Khurja town the mortuary ratios of the past four years have been consecutively 59·83, 107·0, 29·60, and 30·04 per 1,000 of population. The figures of the last two years favour the opinion of the Civil Surgeon.

Some minor works for the improvement of the drainage of different parts of the district have also been effected.

80. In *Agra* the improvements have consisted only of the usual paving and surface drainage works in municipal towns.

In *Mainpuri* the noteworthy improvements have apparently been made only in the capital town of the district. There the most important work has been the creation of a general system of drainage, by which the line of cesspools and other depressions containing stagnant water, commencing from the south end of the town, have been united, the chief pools having been filled up. And the removal of innumerable private reservoirs of foul water which gave on to the streets and lanes of the town. Small drains leading into the general system of drainage being provided to take their place.

81. In *Benares* the chief sanitary work consisted of the construction of a pipe drainage channel in the city of Benares, for the removal of stagnant water from the neighbourhood of Maldihia Tank after excessive rainfall.

And it should be mentioned that Rs. 11,249 were expended on account of establishment engaged in preparing a scheme for the water supply and drainage of Benares city.

This scheme has been long in hand, but appears to make no actual progress of construction.

Yet Benares of all cities of the Indian continent is, in the estimation of the people, most worthy of improvement. It is a centre of attraction to the Hindús of all parts of India, and receives a continued steam of visitors. Cholera disease prevails in the city in every year. It is not unlikely that an efficient system of artificial water supply and drainage might be instrumental in preventing this constant prevalence.

In *Mirzapur* improvements have been effected only at Mirzapur city and Chunar town. The principal works being the conversion of the Khandwa Nálá, in the former city, into a closed drainage way. This nálá received a great quantity of refuse drainage from lac factories, and for this reason principally had become very unwholesome. This refuse is now carried away in the new drainage way. A second work of improvement has been the diversion of the Badlighat sewer to a point lower down the river's bank. Formerly it opened at the ghát which was made for the use of bathers, but

could not be utilized as a bathing place since the sewer was made. A third work of importance has been the improvement of the drainage of the Amanganj Mohulla of the same city.

In *Gorakhpur* a sum of Rs. 20,826 has been expended during the year in works of improvement. The most important of which has been the reclamation to wholesomeness of the great tank bordering the jail at Gorakhpur. This great excavation was described in my report for the year 1870 at page 41. Its improvement may account for the improved sanitary condition of the jail as shown in the section on jails in this report.

SECTION VII.

GENERAL REMARKS.

82. During the past inspection season I have been actively employed upon three separate duties as follows :—

The inspection of centres of population around the cantonments ; the sanitary charge of the camps of the native princes and gentlemen of the North-Western Provinces assembled at Delhi in December and January last ; and the inspection of villages in Kumaun in which a disease locally called máhámari prevailed.

At the commencement of the season, that is, in last October, I had received orders in accordance with the request of His Excellency the Commander-in-Chief forwarded through the Government of India, to confine my attention during the season entirely to the sanitary aspect of centres of population immediately surrounding the cantonments of the province, as the opinion appeared to prevail that the inhabitants, and specially the soldiers, of cantonments suffered in health from the insanitary state of those centres of population.

I made arrangements accordingly to inspect and report upon the sanitary condition of the towns and villages situated within a radius of five miles around every cantonment of the Rohilkhand and Meerut divisions. The first suggestion in regard to this matter received from the military authorities was that the radius of inspection should be 30 miles, but as this great radius would include from 1,000 to 1,400 centres of population around each cantonment, and the inspection of so many could not be effected within the natural period of my lifetime, I obtained permission to limit the radius to five miles. During the month of October and the first ten days of November I was employed in inspecting the centres of population—90 in all—around the cantonment of Moradabad.

In the meanwhile I was directed to assume sanitary charge of the camps of the North-Western Provinces at Delhi. These camps commenced to assemble on the 15th of December, and by a rapid march across Rohilkhand and the Doab I arrived at Delhi on or about that date. My duties with these camps, which necessitated a daily ride of 10 miles, and inspection work never completed until long past midday, kept me at Delhi until the 4th of January, when the camps commenced to disperse.

On the 28th of December, while at Delhi, I received urgent orders to proceed without delay to Kumaun to investigate and endeavour to mitigate an outbreak of disease there resembling plague. By a rapid march across the Doab and Rohilkhand I was able to reach Moradabad by the 12th of January, place my camp in store there, and proceed to Almora, which I reached on the 20th of January, being unavoidably delayed at Naini Tal for three days owing to an unusual fall of snow which prevented the employment of coolie labour. From the 20th January to the 5th of June I was employed daily amongst the villages of Kumaun where disease prevailed, with the exception of a break of 20 days—from the 20th of March to the 10th of April—during which I journeyed from Almora to Lucknow, at the request of the Sanitary Commissioner of Oudh, to receive charge of his office which had been amalgamated with my own,—to Allahabad to make the necessary office arrangements and to incorporate the mortuary returns of the two provinces. Returning, after two days' work in office, direct to Almora to continue my work amongst the máhámari villages. I should add here that one purpose of this rapid journey was to attend a committee of which I had been appointed member to assemble at Benares on the 1st of April, to enquire into the necessity for improved sanitary arrangements for the prevention of disease amongst pilgrims when assembled in great numbers at the Benares railway station. The unexpected postponement of the date of assembling to the 9th of April,

prevented my fulfilling this duty, as news of fresh outbreaks of máhámari in Kumaun necessitated my immediate return to that district.

Sanitary state of villages around Moradabad cantonments.

83. With reference to this subject, I can say that it was my intention to have reported separately concerning the sanitary aspect of each of the 90 villages inspected, and to have pointed out exactly the places where sanitary improvement could be advantagously effected. For this purpose I took full and careful notes at the time of inspection in every village inspected, had prepared a map showing the exact position of each village, and the geographical features of the country contained within the five-mile radius, and advanced such other manuscript work for the purposes of this report as was possible during a time of active inspection work, in which I lived for the greatest part of every day in the sunlight.

But I regret to add that all my notes and other manuscript work referring to this subject were utterly destroyed, as the result of a great rain-storm which happened at Moradabad during the night of the 12th of January last. A stream of water flowed over the office boxes in my tent for some hours, reducing the papers they contained to a pulpy state. For several days, rain continuing, it was impossible to dry the papers during the vicissitudes of a journey to and through the hills in rain and snow, and when at length the sheets could be separated and dried, the writing was found to be either obliterated or blurred beyond deciphering.

84. I regret this, to me, sad accident, more for the sake of the people who reside in the many villages I had inspected than on account of any detriment it has caused to the inhabitants of the Moradabad cantonments.

Of course, although my notes are gone, the memory of general results remains ; and with regard to the question of the amount of harm to the health of persons living in the Moradabad cantonments, which arises out of the bad sanitary state of the villages which surround it, as the result of my inspections, I believe it to be infinitesimal.

Certainly, in hardly any of the villages inspected were the conditions such as could not be improved for the benefit of the people who inhabit the site. But the stretches of clean, well cultivated land around each village are so wide, and the air thereon so sweet, that I cannot believe any harm to health in cantonments can originate from the condition of these sites so long as the residents of cantonments do not visit them.

85. The great inhabited site of Moradabad city, which adjoins the cantonments, must be excluded from this expression of opinion, for, undoubtedly, by a neglect of sanitary laws there, the health of cantonment residents may be injuriously affected. And there, for the past ten years, a very considerable amount of money has been expended, and a ceaseless attention given by the municipal authorities for the sanitary improvement of the site. I have inspected the city in all parts minutely on many occasions, and can witness to the reality of the improvements which have been made, and are still progressing. Permanent sanitary improvements are the growth of many years' effort. I think the necessary effort is in active existence at Moradabad.

86. Further, I can say, for the information of the local authorities, that of all the centres of population inspected during this labour of unfortunate result, by far the most neglected were found to be Pipalsana and Bhojpur, two adjoining centres of population of some importance, situated just outside the five-mile circuit to the north-east of cantonments. I think memory serves me faithfully in regard to these two places, to the effect that they are principally inhabited by a Muhammadan

people who slaughter much cattle, the slaughtering being effected in the byways; that the surface site is broken in many places by neglected excavations into which impurities and bones of animals are thrown ; that the wells are neglected ; cleanliness, even to the usual limit of decency, unthought of, arrangements for drainage of excessive rainfall non-existent. I think all this was principally noticed at Bhojpur, which appeared to belong, in importance, to the class of third-rate towns, or of large villages verging on to the importance of towns. These places of transition state are numerous throughout the province ; many are well known to me. With the population of a town, they have none of its necessary management, and consequent disorder results. The commonest laws of sanitation are disregarded, individual rights meet little consideration. A powerful butcher will slaughter a cow wherever it suits him to do it ; a leading chamar will soak his skins in the water-hole he likes best. Every man, woman, and child will frequent as a retiring place the most convenient open space. The principal sweeper will keep as many pigs as he chooses to roam at large and tear up the site.

It is in such places that active interference is most called for, now that the work of improvement and good management has become firmly established in the important towns, and I think a persistent effort for the improvement of Pipalsana and Bhojpur might be commenced, with great advantage to the resident population, and possibly to the improvement of the public health in the Moradabad cantonments. It cannot be doubtful that infectious diseases commencing in the towns mentioned may be carried to Moradabad, which is constantly visited by some of the people of Pipalsana and Bhojpur.

The sanitary arrangements at the Delhi Assemblage.

87. At this great assemblage of noblemen, chiefs, officials, troops, and followers my official position was of course entirely subordinate. The sanitary charge of the entire widespread host of camps had been given, under the orders of the Government of India, to Dr. Ross, Deputy Surgeon-General. On arrival at Delhi I hastened to place my services for the occasion at Dr. Ross' disposal, with the request that I might be allowed to have special sanitary charge of the camps of the Chiefs and gentlemen belonging to the North-Western Provinces.

Dr. Ross consented to that arrangement at once, and desired that I should send him occasional progress reports ; and from the 16th of December to the 4th of January my attention was devoted entirely to the business of ensuring the reality of the measures adopted for the prevention of disease amongst the people of those camps.

88. The site of these camps, about twenty-three in number in all, had been admirably selected, being a wide space of nearly level land to the west of the Kissenganj suburb of Delhi city. The site was amply spacious, and the camps located upon it had been well laid out by an officer deputed for the purpose from the Quarter-master-General's Department. Roads were marked off and levelled, and the camps so ordered in relation to them that nothing of overcrowding or inconvenience occurred at any time. For the maintenance of cleanliness six fenced latrine trenches were provided, one, each of 16 cells or seats, for the large camps of Rámpur, Benares, and Tehri, and three of the same size for the twenty smaller camps. A fenced urinal trench, in the form of a circular excavation, being attached to each latrine trench at one end, and a wide fenced trench for the deposit of ordinary camp sweepings at the other.

Sixteen iron receptacles, with lids, were placed in well selected spots over the site, and utilized for the removal to the wide trenches of the sweepings and impurities collected from the tents of the more important camp residents.

89. The site was sufficiently spacious to permit of the locating of the horses, elephants, camels, bullocks, and other animals, which were very numerous, at a considerable distance from the habited portions of the site.

These animals were carefully ordered in lines, and cleanliness was maintained in and about the lines by an arrangement, as regards the horses and bullocks, which I encouraged, and by which the country people of the surrounding villages attended daily with their carts for the removal of the collected impurities, to be utilized as manure for their fields. In the elephant lines this arrangement could not be effected, as the country people would not take the sweepings of elephants, saying it was no good as manure. Fortunately ragged excavations of small extent were found near to those lines, and of these, one large and two small excavations were utilized as receptacles for the sweepings in question, labourers being employed to throw a layer of earth over each day's accumulation. In the end a level surface resulted to the general improvement of the land in that neighbourhood.

90. By daily superintendence and inspection I was able to effect, I believe, a good conservancy everywhere. The considerable company of sweepers acting under my orders worked well. They were taught to treat the contents of the trenches plentifully and continuously with the earth which had been dug from the trench, spades being supplied to them for the purpose. New trenches were opened daily, the fences properly moved and set up, the surface of the old trench carefully levelled. The result was satisfactory in all respects; the arrangements, judged by the general use of the fenced trenches by all the people of the camps, acceptable to the native mind.

91. In these endeavours to maintain surface cleanliness, and consequent purity of atmosphere upon the site, I was earnestly helped, without exception, by the vakíls of the camps and their subordinates, of whom either the chief or a deputed subordinate, as leisure permitted, accompanied me in my daily round through every camp.

92. The water-supply was taken entirely from wells which existed on the site previously to its occupation by the camps. Two of these wells—large, old, brick structures—were found to contain water sweeter than the rest, and the water for drinking and cooking for all the camps was taken principally from them. The richer people sent to the wells in the neighbourhood of the Jumna for their drinking water, but all the poor people and the animals drank from the wells described, from which water was drawn continuously, to the improvement of its quality. The wells of good water were marked by white flags, and all people were encouraged to come to them.

93. Only one considerable trouble was experienced in effecting the reality of the sanitary measures described, and that was the difficulty, and even danger, experienced by the people of the smaller camps in passing through the sites of neighbouring camps in the early morning to reach the fenced trenches. In all future great assemblies of this nature, I think it would be advisable to provide a separate retiring place for each camp. Four places of four cells can be as easily and economically managed as one place of sixteen.

94. The health of the people of these camps was admirable throughout the time of assemblage. One case of pneumonia, which ended in recovery, the man being put under cover, and four cases of fever, which quickly yielded to quinine, being the only cases of disease brought to notice. A few cases of sores and contusions, the result of kicks or blows, completed the sick list.

A native medical subordinate deputed from Allahabad, Ahmadyár Khán, who resided in the midst of the camps, made himself useful to all-comers for medicine or medical aid, and entered with spirit into the business of sanitary precaution, which was realized, I think, with a great amount of success.

PROCEEDINGS IN REFERENCE TO MÁHÁMARI DISEASE.

95. It will be necessary, for the more perfect understanding of this subject, to relate in a few words all that had been officially recorded with reference to this disease previous to the outbreak about to be described.

In February, 1836, while Mr. S. M. Boulderson, the Commissioner of the 3rd division, was marching through a part of his division, presumably Garhwál, the tahsíldar of Srinagar mentioned the prevalence of a disease in Garhwál which, by his description, appeared to resemble plague; the disease having been particularly fatal in and about Karnpryág. For this reason Mr. Boulderson called for a report on the subject from the Commissioner of Kumaun. In submitting this report, under date 25th April, 1836, Mr. Gowan, the Commissioner of Kumaun, states that, according to the information of the tahsíldar (of Srinagar), the disease in question originated in 1823 at Kidárnáth, in the person of the Ráwal of the celebrated temple there, who having in that year deviated from the rules prescribed in the Shástras for the performance of the religious ceremony called "hom," was smitten with this new form of disease and died, together with the Brahmans who assisted at the offering. From Kidárnáth the disease appeared in the villages in religious assignment to the temple, and afterwards spread to other parganas of Garhwál.

As regards the outbreak in 1834-35, of which report was especially called for, the disease is described on the authority of the revenue officers as follows:—

"The appearance of the disease in a village had been observed to be preceded by a mortality amongst the rats of the village. The onset of the disease in man is described as sudden, attended with fever, great thirst, and an eruption of buboes or swellings under the arms and behind the knees, with a desire to eat bitter things. After the appearance of the swellings choleraic symptoms appeared, and the disease generally terminated fatally in the space of two, three, or four days, those who recovered being very much reduced for a long period."

At the date of report the disease was believed to have disappeared in Garhwál, after having caused an ascertained total of 633 deaths during 1834-35.

96. The next recorded official notice of this disease is dated 22nd December, 1849, being a letter from J. Strachey, Esq., Senior Assistant Commissioner of Garhwál, to the Commissioner of Kumaun, bringing to notice an outbreak of máhámari in certain villages of the Chaprákot patti in Garhwál. The disease is said to have made its appearance during the rainy season of 1849, and to show no symptoms of cessation up to date of writing. Mr. Strachey states that he has not the means for giving a detailed account of the nature of the disease, but thinks it sufficient to state the following facts:—

"For about 30 years past there has existed in Kumaun and Garhwál a disease known by the local name of máhámari, apparently identical with the plague of Syria and Egypt, the characteristic symptoms being violent fever of the most contagious nature, always accompanied with swellings in the armpit, the disease ordinarily seeming to reach its crisis on the third day after its first appearance in the persons attacked, no known remedies producing any good effect."

For these reasons Mr. Strachey proposes that an application be made to Government for the deputation of a competent medical officer to investigate the disease, and to suggest remedies and sanitary measures likely to check its progress. The letter concludes with a recommendation to the effect that the medical officer chosen should possess a skilful knowledge in medicine, combined with sound judgment and a determination to face a personal risk which may be by no means an imaginary one.

97. In forwarding this letter to Government for favourable consideration, the Commissioner of Kumaun, Mr. J. H. Batten, reports to the following effect:—

That with regard to this outbreak of máhámari in Chaprákot, the real state of affairs is deplorable. That a village visited by máhámari disease is entirely cut off from its neighbourhood, owing to the belief the natives have of the contagious nature

of the disease. Thus, when food fails, the people of the infected village, harbouring the forests and caves near their desolated houses, are obliged to go to their own barns for a supply, each visit renewing the frightful mortality among them. That this disease, which first commenced in the snowy range, is undoubtedly coming lower and lower every year. During 1837 Mr. Batten recollects it to have been alarmingly prevalent in Nagpur and Badhan in Garhwál. In 1846-47 it found its way to the sources of the Rámganga and almost entirely swept away the population of Sarkot near Lobha, and also to a village near the source of the Kosilla in Kumaun proper.

In 1847 a village within 15 miles (west) of Almora was attacked.

In 1848 a few villages along the fatal line of the Pindar river were threatened with a return of the disease.

Mr. Batten points out that Upper India occupies the plague latitudes of the world, and is believed to escape from visitation of that disease only in consequence of the peculiar heat of its climate. And he dwells upon the fact that the portion of Upper India included in Garhwál and Kumaun, being from altitude a cool country, is not guarded from plague by that peculiar heat of climate.

Mr. Batten further records the opinion that the disease in question only attacks certain localities where the inhabitants by neglect of sanitary laws become predisposed to its attack, and that it attains to an infectious form after its commencement in such places.

In accordance with Mr. Strachey's request, and at the desire of Government, the Medical Board suggested that Dr. Renny, Superintending Surgeon of the Meerut division, should be directed to enquire into the history and nature of the disease.

98. Dr. Renny was therefore directed to proceed to the locality of prevalence, to make the necessary investigation and report the result.

Dr. Renny accordingly, after local investigation, submitted to the Medical Board, under date the 19th August, 1850, a paper entitled 'Notes for a Report on a disease called Máhámari or Great Plague' the paper being accompanied by extracts from Dr. Renny's journal of proceedings.

The extracts show that the local investigation commenced at Duddoli village on 9th May, 1850. Here much of local information and belief concerning the disease was gained, but no case seen. On the 10th May two cases were seen, and the symptoms recorded; on the 13th May two cases were seen. From the 14th to 18th May much local information was recorded, but no cases of the disease could be discovered, and on that date the local investigation terminated, as the prevalence appeared to have subsided in that immediate neighbourhood.

As the result of the investigation Dr. Renny recommended to the local authorities in a letter to Mr. Strachey, dated 14th May, 1850, that every house in which máhámari attacks one of the inhabitants should be burnt down, and that the people should be forced to burn or bury the bodies of those who die of máhámari.

In his notes for a report Dr. Renny states that of necessity he saw the disease on a very small scale as to time and number of cases. But from what he saw, and the information he gathered, he had formed the opinion that máhámari is a malignant fever of a typhus character, accompanied by external glandular tumours—a very fatal disease, generally terminating in death within three or four days of attack. That it appears to be infectious, but not contagious. That the appearance of the tumours or buboes is an unfavourable symptom. Dr. Renny insists that the disease is not plague, but simply a malignant typhus, infectious, but not contagious. By not contagious he explains his meaning to be, not communicable by direct or mediate contact. Seeing the almost total failure of present treatment, he thinks attention should be turned to means of prevention.

These he thinks are,—1*st*, removal of the sick instantly from the healthy ; 2*nd*, the disinfection of the houses by fire; 3*rd*, the lime-washing of all houses of an infected village inside and outside; 4*th*, the immediate removal of the bodies of those who have died of the disease; 5*th*, the removal of the manure heaps from the immediate neighbourhood of the dwellings.

Lastly, Dr. Renny states that he will propose a plan to the Medical Board for supplying medical aid to the district in the event of the disease again breaking out, as by this means the disease may be carefully observed, its proper treatment discovered, and erroneous views taken in the "notes" corrected. The plan submitted was the location of four or five medical officers, with suitable allowance from the civil department, around any infected tract, to trace out and relieve every case within their circle of observation.

99. In accordance with the recommendations of Dr. Renny, the Government sanctioned the carrying out of measures for the removal of manure heaps, and directed that, on the breaking out of the disease in future, native officials should be employed to burn the bodies of the dead, and destroy the less valuable of the infected houses, compensation being awarded to the poorer class of sufferers. And immediately that the prevalence of the disease had been ascertained with certainty, the employment of a medical officer, who would receive the allowances of a civil assistant surgeon, was approved. The officer appointed to be despatched to the locality of disease for its study, and to afford such aid as may be possible to the sufferers.

100. The recorded mortality from the outbreak of 1849-50 was 113 deaths in nine villages.

101. Máhámari disease continuing its prevalence in 1851, in October of that year Dr. Pearson was deputed, in accordance with the above orders, to investigate and report upon the nature of the disease, being accompanied and assisted during the investigation by Sub-Assistant Surgeon Srinath Mukerji.

From the information gathered, and from personal observation, these officers in their joint report, dated 1st December, 1851, express the opinions that máhámari is a contagious and infectious disease, considering both words as synonymous. That the predisposing causes are—personal filth, and filth in and around the dwellings of the people, poverty of food, and fear of the disease. That the exciting cause is contagion. That the most hopeful remedial measure would be the removal of the predisposing causes.

As to the nature of the disease, they put forward a few remarks, founded principally upon native evidence carefully collected, to the effect that máhámari is simply typhus fever, assuming a rapidly fatal character from the peculiar predisposition of the people; that the suppuration of the buboes is a favourable symptom ; that rats have been frequently found dead in the affected houses ; that although as yet the disease has hitherto been endemic, there seems no reason why, under existing circumstances, it should not become epidemic.

102. The disease still prevailing in 1852, April and May, the same two medical officers were again deputed for its investigation. And in their report dated 17th May, 1852, record the opinion, as the result of the actual treatment of four cases, and of more extended observation, that the disease is *plague* ; that suppuration of the characteristic swellings is a favourable symptom ; that the disease is propagated solely by contagion.

103. Deaths from the disease still occurring, and its infectious nature being recognized, in August, 1852, it was deemed expedient to appoint two medical officers, Dr. Francis and Dr. Pearson, to act in conjunction for the study and prevention of the disease.

During the years 1852-1853 these officers were actively engaged in the study of the disease and its treatment, and in their report submitted to Government they record the opinion that the disease is *plague*. These officers saw many cases of the disease, and recorded the *post-mortem* appearances in four cases, the chief diseased conditions observed being congestion of internal organs, specially of the brain, a diseased condition of the blood, and effusion into the serous cavities.

They believed that its appearance was due to insanitary conditions in and around the dwellings of the people, and its great prevalence in any village due to the intensely infectious nature of the complaint. They considered that its proper remedy was sanitary reform in the villages.

104. In consequence of this report, during the years 1854-1857, Dr. Francis and Dr. Pearson were employed chiefly in directing and enforcing measures for the improved sanitary condition of the villages generally in Garhwál and Kumaun. I think this important work was principally effected by Dr. Pearson, who has kindly placed his journal of a portion of this period at my disposal. From it I learn that the measures insisted upon were—the better ventilation of the dwellings by the making of windows, the removal of the cattle from the dwelling-houses to cowsheds erected at some distance from the village, the maintenance of cleanliness throughout the village site, the clearing of jungle from the neighbourhood of the village, the discontinuance of the cultivation of hemp crops anywhere within the habited site, and the whitewashing, either with lime or clay, of the interior and exterior of the dwellings.

The entries in Dr. Pearson's journal witness to the reality of the improvement effected in many hundreds of villages, and I think it is probably true that during the years under consideration the sanitary aspect of every village of any importance in Kumaun and Garhwál was greatly improved. During those years there is no record of máhámari prevalence. It is likely that the sanitary improvements were most real and general in Garhwál, where Mr. Strachey entered very heartily into the work.

105. During 1857-58, the period of mutiny trials and experiences, it is probable that the newly-established sanitary measures were neglected; however that may be, it is certain that in September, 1859, Dr. Pearson was invested with the powers of a Deputy Magistrate in Kumaun, to enable him to enforce his orders in carrying out the sanitary measures necessary to check the máhámari fever which had broken out in the northern parganas, and in 1860 it is reported that close upon 1,000 persons died of the disease. From 1859 to 1875 Dr. Pearson, who had also been appointed sanitary officer of Kumaun and Garhwál, continued his labours at intervals for the improvement of the sanitary aspect of the hill villages, with a great amount of success as regards the prevention of máhámari disease, of which I can trace official mention only in 1865, when the Commissioner of Kumaun sanctioned rules to be in force in combating such a calamity as máhámari, and in 1870, when an outbreak of máhámari at Sarkot, which commenced on the 20th of September, and continued till the 9th of November, is reported by the Senior Assistant Commissioner of Garhwál.

For a considerable number of years of the period last mentioned Dr. Pearson has held the additional appointment of Superintendent-General of Vaccination for the North-Western Provinces, and it is not unreasonable to suppose that he cannot have been able, during recent years, to devote so much time and attention as formerly to the maintenance of good sanitary conditions in the villages of Kumaun and Garhwál; and to this cause it may be due that in many of the villages I have recently inspected, the sanitary measures he laboured so earnestly to establish were either non-existent or little apparent.

106. My own duties with reference to this disease commenced on the 20th January, 1877, as previously recorded, in obedience to the commands of Government, by which I was directed to proceed without delay to Kumaun to assist the Senior Assistant Commissioner in carrying out the sanitary measures necessary for the prevention of the further spread of the disease; and after that was effected to report concerning the epidemic to Government, and especially to explain whether the sanitary rules

prescribed for checking this disease twenty years ago had been duly and constantly observed.

These orders were issued in consequence of the report of the Commissioner of Kumaun that máhámari disease had been a good deal prevalent during the months of November and December, 1876, in certain villages of Kumaun, and the Commissioner's recommendation that a medical officer should be deputed to carry out the necessary sanitary measures as requested by the Senior Assistant Commissioner of Kumaun.

107. In writing the history of this outbreak of disease, I propose in the first place to record its local history in every village attacked, and then to record such general remarks as the histories appear to warrant, coupled with such information as may be learnt from any available source of information.

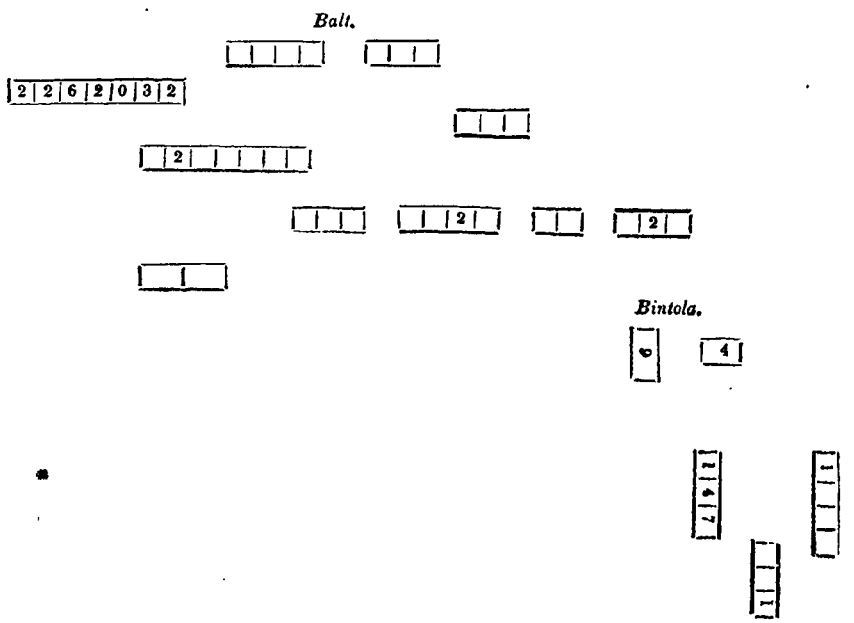
108. The villages attacked in this last outbreak may be divided into the following groups:—

Parganas.	*Villages.*
Khás Párjá	Bált. Bintolá. Sirár Nainolí. Gajulá. Sallá. Biraura. Maichor. Matoli.
Borá-ki-Ráo	Baunri. Tanda. Sajoli. Phaliánti. Cháin. Behta Talla. Kausani. Kajuli. Mangáltá. Ajula. Tailihát. Kúrúráh.
Áttárgoli	Bhándárgáon. Dúgorá.
Dánpur	Parsáli. Sungárh. Báret. Naukori. Sámá. Bándhár. Gaulá. Bhámáugáon. Dor. Chachéna. Birtáng. Dárkot. Alám. Bothi. Básánkot. Kásiábará. Gádérá.

BALT AND BINTOLA.

First inspected on the 21st January, 1876.

109. *Balt* and *Bintola* are two adjoining villages situated rather low down in a valley about four miles north-east of Almora town. The houses are well built of stone, with solid roofs of thick hill slate. They are arranged in short terraces on the hill side, in accordance with the following ground plan, Bintola being lower placed than Balt. In the plan each square represents a house, and the figure the number of deaths which occurred in the family inhabiting the house.



The people of Balt and Bintola are friends; they have intermarried, and relatives of many families live part in Bintola and part in Balt, and for the purposes of this enquiry the two villages may be considered one.

110. Máhámari disease first appeared at *Bintola* early in November, 1876, in the person of a child of the padhán or headman of the village. This child had never been out of the village since it was born, and no stranger had visited the village for some months before the child was taken ill. The child died on the 3rd day after it sickened, and while it was sick two other children of the same family were taken ill, and also died. In the two houses which formed the homestead of the padhán before the sickness commenced, there resided a family of fourteen persons in all. Of these fourteen persons, thirteen died at intervals during November and December, all with the same symptoms of disease, commencing with shivering, quickly followed by intense fever, ending in delirium, insensibility, and death on the third or fourth day.

In the terrace of three houses adjoining the padhán's home three families resided, containing a total of fourteen persons. The women of these families helped to nurse the sick of the padhán's family, and during November and December twelve of of these fourteen persons died of the same form of disease.

At first the sick were nursed and died in the houses, afterwards the sick were nursed and died in temporary huts outside the village, and all the bodies were buried after death. In all, thirty-one cases of the disease occurred during November, December, and January, and 27 persons died. The four persons who recovered presented themselves to me on the 24th January for examination. All had the same appearance of extreme debility with emaciation, and one had a small bubo in the left axilla, which appeared on the sixth day of his illness seven days ago, and is now soon likely to suppurate, being hot and tender. (It did afterwards suppurate, and the man perfectly recovered.) Bubo was noticed both in the axilla and inguinal region in some other of the later cases, but in none of those who died quickly at the first outset of the disease. And it was only after the buboes were seen that the people knew they were suffering from an outbreak of golá, the name given by the hill people to the disease of which I write, *máhámari*, meaning *pestilence* of any kind. No appearance of bubo occurring in the first rapidly fatal cases, the people thought the disease was sanjar—a form of continued fever common amongst the hill people and frequently fatal, but believed to be less contagious, and therefore less dreaded than golá. Consequently they continued to reside in their houses and carefully nurse the sick, and even sent for a holy man from Almora to pray for them and sacrifice to Devi, for which he was well paid. When the buboes appeared the Gosain left, and the people vacated their houses. From the time the people vacated the site, to live in temporary huts or in caves on the hill side, only one death occurred, as will be hereafter described.

111. In *Balt* the first case occurred in the person of a woman named Báni, who had gone to the padhán's house at Bintola to assist in nursing the sick children there. She resided and died in one house of a terrace of seven in the upper part of Balt, next her daughter died, then four persons died in the adjoining house, then her husband died, and the disease spread through the terrace, so that deaths occurred in every house excepting one which was untenanted. In all, 13 persons died in the terrace during December, and then, as at Bintola, the people of the villages vacated their houses so soon as golá or bubo was noticed as a symptom of the disease in those who lived beyond the fifth day. Indeed, deaths from golá being reported, the civil authorities directed the people to vacate their houses, and they located themselves in huts of grass and branches on the hill side. All remained well until a great fall of snow occurring on the 14th of January, the people returned to their homes, and during the succeeding five days four more deaths occurred in the houses of the terrace previously affected. The people, seeing this return of sickness, fled at once to the hill side, leaving the sick, who died unattended in the houses.

At my first visit of inspection, on the 21st of January, the local conditions at Bálṭ and Bintola were as follows:—Both villages were uninhabited; the former inhabitants scattered in families miserably lodged in huts or caves far off; the village cattle roaming and feeding amidst the young wheat of the cultivated terraces around and below the villages. The torn remains of thirteen cows, calves, or bullocks, and five goats, scattered in different places, witnessing to the truth of the local statement that, from dread of the disease, no one dare venture on to the site to house the cattle as night approached, and that consequently leopards and hyenas were killing them.

The well-built houses were seen to be double-storied, one room below and one above; close, unventilated tenements. The lower room used only as a cow-house, the upper room for family occupation.

In the lower room, about five feet high, it had been customary to lodge from four to eight head of cattle or goats at night, and, indeed, in some instances as many as the room had standing place for; the only opening, being the small doorway of entrance, tight closed and barred at night.

These rooms were seen to be littered for about a foot in depth with little decaying straw and much manure, moistened by the fluid excretion of cattle, and the entrance way on each side, and the stone platform facing the lower story, were piled with heaps of manure, which had been drawn out of the lower room as necessity required, and there left for eventual removal to the land in the ploughing seasons.

The upper room was noticed to be roughly divided by wooden slabs into a front and back portion; the former used as the family sleeping place, the latter as a granary. The doorway, and in some instances a round hole in the front, and a small round hole for the exit of smoke through the roof of the house, all commonly closed at night, being the only openings. The floor was made of thin wood, with pretty numerous cracks, so that the warmth generated by the cattle below could reach to the sleeping people above, afterwards locally described as a beneficial arrangement, for no man would go with me into the villages at this time.

The previous description especially applies to the houses of the infected terrace in the upper part of Bálṭ, and is generally true of all the houses of the village, of which I closely examined every one.

Upon the stone platform facing the terrace abovementioned lay the broken remains of the four persons who had last died; their limbs and skulls torn and scattered by jackals—a grievous sight.

112. As regards the site generally, and the precincts of the villages, nothing of insanitary aspect could be seen. With the exception of a grove of pine trees at one place, the sharply sloping surface was clear of excessive vegetation everywhere. A mountain stream of bright water, flowing between the village sites, furnished an ample supply of good water for domestic purposes. Above the village sites all was clear, open, rocky ground; around and below the sites almost all the surface had, by the patient industry of many years, been fashioned into narrow terrace fields, spreading down in green steps of young wheat and barley to the margin of the rocky stream flowing in the very bottom of the valley. In short, the surrounding conditions were clear, clean surface, bright flowing water, sweet air everywhere; all of unwholesomeness the site contained was gathered within and immediately around the habitations, or in the close neighbourhood of the dead cattle.

113. During the inspection, the results of which are recorded above, the remaining population stood far off in groups on the hill side anxiously watching proceedings. The inspection completed, I rejoined the principal heads of families to appeal for help for the disposal of the remains scattered on the terrace platform. The result was unfavourable. No help could be given for any consideration whatever; but advice was tendered by the padhán, and at first acquiesced in by all, to the effect that, as the houses would never be re-inhabited, it would be well to burn the terrace down. It

was explained to me that early in January the houses of the terrace had, by order of the civil authorities, been disinfected by burning sulphur in them; but that, notwithstanding this precaution, more deaths had occurred there after the people returned to their homes in the snow-storm. Therefore the general opinion was that the houses had better be entirely destroyed, as also the houses of the padhán in Bintola. To this arrangement, however, the expectant heirs to the property in question eventually objected. In many cases these heirs were very distant relations, indeed, of those who had died. In some cases they had left their relations to die alone, and to be eaten by wild beasts, conduct locally esteemed to merit forfeiture of heirship rights. But they being legal heirs, whose right senses had been overcome by fear, it seemed to me just to promise them that until compensation could be ensured no property should be destroyed.

114. With regard to the neglected remains, the local opinion was that they should be left where they lay, as the jackals would eventually draw them down into steep places and eat them up. No tools could be lent to dig a grave for them, and to burn them was considered objectionable, as likely to spread the disease by means of the smoke produced.

As I deemed it essential, for several reasons, that these remains should not be drawn about the village site by jackals, but be safely disposed of without delay, I was glad to be able, after considerable unpleasant labour, to draw them together and consume them with a great pile of wood gathered from different parts of the village; being ably assisted in the work by Músá, a brave man who formerly assisted Dr. Pearson in his labours for the prevention of golá disease, and had been attached to me in a like capacity. As Músá served me faithfully and fearlessly during all the time of the inspections about to be described, I take this opportunity of stating the fact, and of recording my sense of obligation for aid in many a trying scene to this generally quiet but efficient man.

115. For the next few days my time was employed in the study of the disease in other villages of this group, and in frequent visits to the people of Bált and Bintola, with the special object of relieving to the utmost possible extent the misery of their condition, scattered as they were during very inclement weather on the hill side, and cut off as they were from their stores of food which had been left in the houses, and which they dared not venture to approach.

By the willing aid of the civil authorities a supply of new clothes and blankets was provided. The old clothes and blankets of all surviving members of families in which deaths had occurred were gathered in a heap and burnt. All women and children, and poor people generally, whose clothes were ragged were re-clothed and presented with a blanket, on condition that the ragged clothing and thin old coverings should be burnt. A supply of food, to be provided by the neighbouring villages at stated intervals, was arranged for. At the same time the already existing quarantine, by which the people were prevented from going beyond their village boundaries, was maintained.

This order was advantageous only as preventing the people from visiting the town of Almora. For, as regards the neighbouring villages, the news of the prevalence of golá disease in Balt and Bintola having spread abroad, no person of their population would have dared, under risk of immediate violent ejection, to have passed within a neighbouring village boundary. An illustration of the strictness and reality of this locally established quarantine will be given in the Sirar history about to follow.

116. Having received the necessary sanction for the promise of a reasonable compensation for property destroyed—a sanction immediately accorded by the commissioner of the division—as also to all necessary expenditure for new clothing and blankets, on the 29th of January I burnt down the infected terrace in Balt and the padháns' houses in Bintola, and also all the temporary huts in which some of the dead

had been nursed. At the same time wood was heaped over the shallow graves in which some of the dead had been buried in the village site and burnt. All cotton and woollen things in the other infected houses were brought out and thrown into the burning houses. On the day this efficient disinfection was carried out, a man of Bintola, who had lived in one of the infected houses during the time of snow, was taken ill. I saw him twelve hours after his illness commenced.

He lay alone in a field at the entrance of a grass hut, crouched in a heap under a blanket, and almost insensible. His pulse 150, eyes yellowish, body trembling, not able to understand a question, just able to sit up quickly, to sink down again with his face to the ground. A man evidently suffering from an overpowering poison, from the effects of which he was going to die. Before his friends fled they had placed a wooden vessel containing water near him. A little of this mixed with brandy seemed the most hopeful form of remedy; but the dying man would take nothing. A few hours afterwards he was found dead, his friends consented to dig a grave, and he was buried. There was no appearance of bubo anywhere on his body, those characteristic swellings not appearing until the fifth or sixth day of the disease, as will be seen hereafter.

117. After the date of the disinfection by fire, all the people remained well at Bált and Bintola until the 1st of March, and had begun to look cheerful again. On that date the son of one Tejua, of Bált, who lived with a family of six persons in all in a small cave, was taken ill. His symptoms were, when seen about 12 hours after the attack commenced, skin hot, pulse 120, tongue grey but clean, head painful, eyes suffused, intellect dull, strength prostrated. The alarming symptom was the pain in the head, pointing to congestion of the brain; cold applications were wrapped about the head. On the third day the boy was insensible, on the fourth day a glandular enlargement appeared in the armpit and in the groin, which increased in size during the fifth day, and on the sixth day the boy died. During his illness he was carefully nursed by his father, the other members of the family remaining near the cave. The father buried the body after death near the cave, and then the family fled away to a grass hut at another place in the village boundaries. The day after the son died the cave was filled with dry wood and straw, and thoroughly burnt out with all its contents of rags and coverings. The remaining members of the family were taken down to the stream, made to strip and wash. Their old clothes and blankets were gathered into a heap and burnt with wood and straw, and new clothes and blankets given to them. For many days they lived in a state of intense fear and depression, especially Tejua himself, a strong man of 50, who at times cried like a child at the thought of his trials and his family's sufferings, but hope returned as the days passed, and all the family were in good health at the end of June.

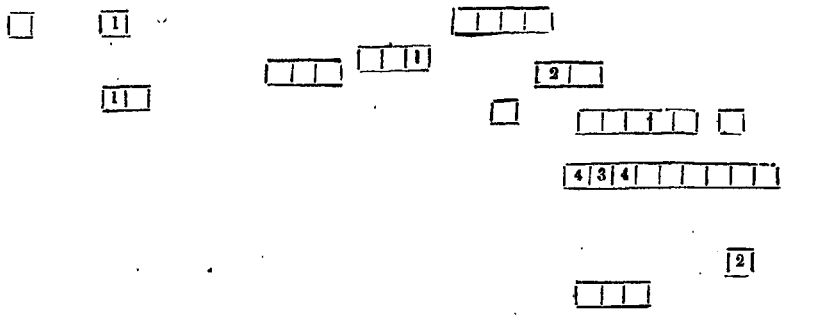
118. I should add that there can be no doubt, as the result of the concurrent testimony of many persons, that early in November many rats died in the houses of Bintola. It was stated that as many as four in one morning were swept from the upper floor of a house; and it was also said that certain children, all of whom have remained well, as a matter of pastime, cooked and ate one or more of the rats so found dead.

SIRAR.

119. Sirar is a large village about four miles east of Balt and Bintola. The houses, well built, after the Balt and Bintola plan, stand upon a spur of rock jutting into a narrow valley. The spur, sloping quickly to the eastward, is cultivated in terraces from the top to the bottom, where the usual clear stream runs.

The following is the rough ground-plan of Sirar:—

Sirar.



The figures denote the cases or deaths from máhámari disease which occurred in the family inhabiting the house.

120. At my first inspection of this village on the 28th of January, the insanitary appearances described in regard to Balt and Bintola were seen to be equally present here. Two separate cow-houses, which had been built in previous years, had been allowed to fall into ruins, and the custom of housing the cattle in the lower rooms of the habitations was in full force here, with the usual result of extreme filthiness below and around the houses. In no other respect could anything unwholesome be noted within or around the site.

The history of the outbreak of golá disease was thus given by the padhán of the village in the presence of many people who acquiesced in the correctness of his statements.

In the month of November a boy of 15, named Keshrua, went to Balt village to fetch wheat for seed. He remained one night at Balt, sleeping in a house in which a woman was ill with golá disease, believed then to be sanjar disease, as before described. Fifteen days after Keshrua came home again, his little sister was taken ill with continued fever, and died after three days' illness; while she was ill Keshrua was taken with the same form of disease and died. Five days after Keshrua died his little brother sickened and died. Ten days after his death the father, Usup Singh, a noted wrestler, and the strongest man in the village, was taken ill. While ill, a young daughter of his fourteen years of age, and only just gone to live with her husband in a neighbouring village, came home again expressly to nurse her father, who died on the sixth day after his attack commenced. He was also nursed by his brother Dhan Singh, who carried Usup Singh's body outside the village and buried it. A few days afterwards Dhan Singh was taken ill and died, and the last person who had died before I inspected the village was Dhan Singh's daughter.

Of these six persons who had died swellings were noticed in three, both in the neck and groin, and when they were noticed the people of the village fled out on to the hill side, and remained there in huts and caves, excepting the Usup Singh and Dhan Singh families, who remained and died in their houses, nursing the sick and burying those who died.

Of these two families, there remained at the time of my first visit Usup Singh's wife and three children, who had vacated the family residences—three houses at one end of a terrace of nine—and were living in a grass hut in a field below the terrace. No person of the village would approach them, and they were spoken of as doomed to die soon.

The padhán and other principal persons of the village desired that the three infected houses should be burnt; and they would have been burnt at once, but for the violent conduct of a third brother of the same family, named Ganga Ram, who owned the corner house. This man, a well known Government servant, employed as jemadar of

coolies at Almora, had taken leave to join the family and look after his property in this time of trouble, and would not hear of his house being destroyed. Sitting in the doorway, axe in hand, he said if the house was to be burnt he would be burnt with it. He was willing to assist at the burning of the other two houses so long as his own was spared. With infinite labour the two were burnt and the corner house spared.

121. On the evening of the same day (28th January) the clothing and blankets of the remaining woman and three children were burnt, and new clothes given to them; a better hut was made for them, and straw for bedding supplied. Food, water, and fuel were placed in the hut, and a dose of quinine administered to each of them. At this time, as the mother was noticed to have an anxious look, with other appearance of approaching disease, an old woman with a great goitre, an aunt of the children, was induced by a gift of clothing and food to join the party.

On the 30th of January the mother was found ill of the prevailing disease, the children and aunt having fled away from the hut. The symptoms of the mother were those of continued fever, with congestion of the brain, and utter prostration of strength. She had been seriously ill for about 15 hours, was unable to sit up, lying upon her face in the straw. She could neither eat nor drink, or be persuaded to take any medicine. The aunt and children were found in one of the village fields crouched against a wall overcome by fear. A new hut and fresh food were provided for them.

On the 31st of January the mother was found dead, lying on her face as before. No appearance of swelling could be found upon her anywhere. With great difficulty the villagers were persuaded to bring wood and fire to a field neighbouring the hut, and that effected, they all fled up the mountain side and over the watershed. With the assistance of a chaprasi, then new to the work, the wood was piled in the hut until it was full; that effected, and handing a blazing whisp of straw, the chaprasi fled away after the rest. The resulting fire, however, was fierce enough to destroy the body.

The aunt and the children were bathed in the neighbouring stream and new clothes again given to them. Their former new clothing and blankets, and all the clothing and coverings of the dead woman being burnt in the fire of the blazing hut.

122. During the first week of February these four persons remained well. The weather having become extremely inclement, with continuous rain or snow, the poor creatures, unable to bear the cold and misery of a hut life, crept into the lower story of Ganga Ram's house, which had been spared. On the 6th of February I found them there, the youngest, an infant, asleep on a manure heap in the doorway. On the 8th February this infant was taken ill, and died insensible on the 10th. On the 8th February also, while still inhabiting the same house, for the ground outside was covered with snow, the aunt and the girl who came to nurse her father were taken ill. Seen on the 10th, the symptoms in both cases were those of continued fever. Doses of brandy and quinine were administered to both. On the 12th the girl had a quick pulse, clean tongue, hot skin, clear intellect, and in her left groin a glandular enlargement, tender on pressure. The old woman, a quick pulse, coated tongue, hot skin, clouded intellect, and a boil-like swelling on her left eyebrow. Both able to stand up and talk, eat, and take medicine. On the 13th the old woman became delirious and died insensible; but the young girl, progressing favourably, was convalescent on the 14th, and again resumed her duties of feeding and tending the remaining child, her curly-headed brother, five years old. Her glandular enlargement suppurated on the 20th, and she perfectly recovered, and was, I think, the means of saving her brother's life. Of all this formerly prosperous and respectable family, this boy alone escaped an attack of the disease, and, but for his sister's recovery, he, too, must, I fear, have died from neglect, for by no possibility could I get any person to approach the children after the aunt died.

The body of the infant who died was thrown down a steep place by the aunt and eaten by jackals. The aunt's body was buried in a field below the house, as no help could be obtained for the carrying of the body, and no fuel to burn it.

123. To return to Ganga Ram and his family. At the time his house was spared he had promised that no one should enter it for two years if I would spare it. Nevertheless he permitted his son, a boy of 13, to go to the house morning and evening to loose and confine the cattle which were housed in the lower room. On the 2nd of February this boy was taken ill with symptoms of continued fever, and died insensible on the 4th without appearance of bubo. From that date the cattle were allowed to roam at night, and the children of Usup Singh's family inhabited the room, as described above.

Ganga Ram nursed his son in a hut on the hill side, and after the son died, and he had buried him, he returned to the village and lived for a few days in a house above the one which had been spare, and which, having become reckless, he often visited. Ten days after his son died he himself was taken ill, and died on the third day, while I was absent at Dugora and Bhandargaon.

Before his death he sent for certain doms, low caste men, who lived in three lowest placed houses of the village, and directed them to remove the roof of the house which had been spared, so that the beams might be saved, as he had said that if he died the house might be burnt. For this service he gave the grain in the house to the doms, who unroofed the house accordingly and took the grain—principally rice and madhúá—down to their own houses.

124. On the 27th of February a widow woman named Khemuli was attacked with the disease. She had been in the habit of fastening her cattle every evening in the room below her house, No. 4 of the infected terrace, and unfastening them in the morning; she herself residing in a detached house near to the dom quarter. I saw her on the 5th March, and noted the following particulars:—Pulse 120, no pain, quite sensible, very weak, has a large boil-like swelling in the right axilla, and a glandular enlargement in the right groin. Quinine and brandy given to her. On the 8th March her condition was—pulse 100, eating dál and rice, getting well. Boil-like swelling in the right axilla broken and discharging white pus; glandular enlargement in the groin decreased in size. Has a puffy swelling of considerable size on the back of the left arm, not seen before, but which commenced to form on the seventh day of her illness. The swelling has a doughy feeling, but does not fluctuate. On the fourteenth day of her illness, namely, the 12th of March, Khemuli was found convalescent, the swelling on back of left arm broken and discharging pus, and she eventually recovered. On this day her clothes and blankets were burnt, and new clothes and blankets given to her.

During her illness she had been nursed by a young woman named Lachmi, who slept in the lower room of the same detached house. On the 13th of March Lachmi was taken ill with symptoms of continued fever, commencing with shivering. On the 14th she was delirious; on the 15th she died insensible, without appearance of bubo or swelling anywhere. Her husband, named Bachia, carried Lachmi, while sick, on his back to a cave near the detached house, nursed her in the cave, carried her body in his arms, and buried it after death.

With the sanction of the owner the detached house was burnt, the cave burnt out with straw and wood, all clothing and coverings belonging to the dead Lachmi and to Bachia were burnt, and new clothes given to Bachia, who did not take the disease. No other case occurred in that neighbourhood. Although carefully watched for, no case occurred amongst the dom community proper, who at my request burnt all the grain taken from Ganga Ram's house, and threw back the wood of the roof into the house when it was burnt.

125. On the 27th of February also another widow woman named Mali was taken ill. She had two sons, whom she had sent away to a neighbouring village

immediately after the suspicion arose that golá disease was present in Sirar. She herself remained for the care and protection of the family property, and specially the cattle, which she fastened every evening in the lower room of her house, No. 5 of the infected terrace; sleeping herself in a hut on the hill side far from the village with other people, her friends and relations.

Upon her attack with disease, these fled to another distant spot in the village lands, leaving Mali alone in the hut; a supply of water and food being placed near her. I saw her on the fifth day of her disease. During the five days she had eaten nothing, and the following symptoms were noted:—Has great pain in the head, is rather deaf, nervous energy gone, drew herself with difficulty to the door of the hut, but cannot sit up; pulse 150, strawberry tongue, drinks water occasionally. Lies on the bare ground covered with a blanket. No appearance of bubo or swelling anywhere; quinine and brandy were administered as medicine; a bed of straw was provided; sugar and rice supplied as food.

On the following day her symptoms were—pulse 120, pain in head much less, tongue grey, sordes on the teeth, extreme debility, no bubo. On the 8th of March her symptoms were—pulse 120, tongue clean (reddish), skin hot. States that for the first two days of her illness she had frequent vomiting; has had no diarrhœa; bowels moved about once in two days. Is able to sit up; picks at straws on the ground; still a little pain in the head; talks sensibly; eats rice and sugar occasionally; no bubo anywhere. A clean sheet, new petticoat, and blanket given to her; old soiled clothes and coverings burnt. Brandy and quinine administered, and tea supplied.

On the 10th of March her symptoms were—pulse 140, skin hot, intellect clear, breathing rather quick, with a little cough, eats sugar and rice, bowels moved once since the 8th, very weak, picks at straws, has no bubo. On the 16th of March her symptoms were—pulse 120, eyes dull, sits up well, takes tea and sugar and rice, tongue moist, gray, no cough; says she wants nothing; appearance of bubo in the left groin.

This woman continued to mend slowly, but her life was nearly lost by reason of neglect. Her relations called to her every morning from the hill side, and when they knew she was alive, left rice and gur and water at a little distance from the hut, and then ran away. The woman slowly crawled to the food and back again. Night and day she lived alone, and, excepting at the time of my occasional visits, never conversed with any person. The bubo in her groin slowly increased until it formed a reddish shining tumour as large as a small orange, which broke and discharged matter.

On the 16th of April her symptoms were—pulse 90, tongue clean, has an abscess in the groin discharging yellow pus. Is convalescent, but very feeble; her hair and clothes infested with lice, which prevent sleep. After long waiting for scissors, her hair was cut off close to the scalp. The honeycombed scalp was cleared, her clothing changed; the hut, old clothing, and hair burnt together. Before the hut was well ablaze the poor woman was stretched in deep sleep under her clean sheet in the warm sunlight. A new hut was provided for her at a more convenient place, and her recovery was soon perfected. Of the four men who carried her on a pole up the hill side to the new hut, one is reported to have since died, and, I believe, correctly; but I was otherwise employed at the time of his illness, and know nothing of the particulars.

126. On or about the 25th of March, during my absence, a boy who lived with his father and sister in a separate grass hut on the hill side was taken ill. The boy had been used to go daily to fasten up the cattle in the lower room of a house just above the infected terrace, and to take food from the house for family use. On the second day he was delirious; on the third day he became insensible and died. His father nursed him tenderly in the hut, and three days after the boy died the father was taken ill, and also died on the third day. No bubo appeared in either case. The hut

was burnt with its contents on the second day after the father died. The daughter was re-clothed on the same day; her old clothing and blanket burnt. On the 16th of April she was found well She stated that she had remained in the hut during her father's illness, but at his request had remained apart from him. This girl did not, so far as I know, suffer from the disease.

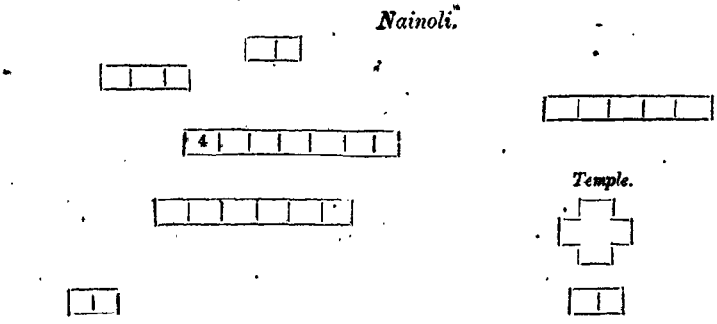
127. These were the last cases of the disease which occurred at Sirar. From the end of March to the middle of May the remaining inhabitants, carefully avoiding the village site, remained all well. At the end of May the village site was thoroughly cleansed by the removal of all manure to the fields, and early in June the village was re-inhabited, without, so far as I know, ill consequences.

128. During all the time of the prevalence or even suspicion of golá disease the Sirar people lived in a state of strictest quarantine. The reality and strictness of this quarantine was forcibly illustrated during one of my visits to the village. On arrival I found the people in a great state of excitement on the hill side. On enquiry it appeared that in the early morning, it was a time of general snow, a Jharow deer had come down into the village land from the wild inner country; had been attacked by the people, shot in the leg, wounded with axes, and almost killed as it crossed to die within a neighbouring village boundary; yet the people of Sirar had not dared to follow the animal over their boundary, because of the established quarantine, and the game had been carried away by the neighbours in the sight of the Sirar men, who claimed a share of the flesh, or money recompense.

NAINOLI.

129. Nainoli is a village of some importance situated near the top, but on the southern aspect, of a mountain, and about eight miles north-west of Almora. It stands on a steeply sloping surface, and the habitations are built in terraces, of which the following is a rough groundplan:—

Nainoli.



I inspected this village for the first time on the 1st of February.

Golá disease first appeared in this village on the 18th of January, and the following is the local account of the outbreak and course of the disease.

130. Some time in November last, a deaf young man, nephew of Rup Singh, went to Tánda, taking radishes to exchange for rice. The rice he obtained was taken out of the house in Tánda to which a case of golá disease had been brought from Kausani, as will appear hereafter.

Ths deaf nephew carried the rice to Nainoli, and it was stored in Rup Singh's house. On the 15th of January this rice (dhán) was husked by the women of Rup Singh's house, and it was cooked and eaten by all the members of the family. On the 18th of January Rup Singh's daughter, aged 12, who had never left the village in her lifetime was taken ill with symptoms of continued fever, ending in delirium, insensibility, and death on the fourth day. Before she died a small glandular enlargement was seen in her groin. On the 19th of January Rup Singh's son, a boy, was taken ill and died on the four day also. On the 21st of January Rup Singh's wife was taken

ill, and died on the 6th day. And on the 25th of January Rup Singh's daughter, aged 16, was taken ill, and died on the 4th day. The symptoms in all four cases were alike, and bubo was seen in three out of the four cases. After the fourth death occurred Rup Singh, his third daughter, and the deaf nephew—all the remaining members of the family—hastily vacated the house, and took up their abode in a shed on the northern aspect of the mountain, far from the village site.

131. At the time of my inspection the following were the local conditions:—A village of substantially built houses, like those described in the report of Bált and Bintola. The lower rooms utilized for the accommodation of cattle, and consequently piled with manure accumulations of many days. This was specially noticeable of the houses forming the terrace to which the infected house belonged, and more specially of that house itself and the adjoining house, the accumulation of manure in which reached almost to the floor of the upper room, at the back part. All the people of this terrace have vacated their houses to live in the other houses of the village which are inhabited as usual.

In all other respects the village site and its precincts presented a wholesome appearance. Most of the houses of the vacated terrace seemed to be old, the wood work of the fronts decaying, the upper rooms close and bad smelling; no labour for cleanliness having apparently been expended on the houses, either inside or out, certainly for a long time.

The three remaining members of Rup Singh's family were examined and found well. Rup Singh stated that he had buried all the persons of his family who had died, and pointed out his wife's grave immediately below the house. Stones and branches had been piled on the grave to prevent its desecration by jackals.

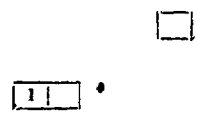
132. With the assistance of Rup Singh and his nephew, and some of the men of the adjoining house, Rup Singh's house was burnt, together with its contents, excepting tools, papers, and valuables. All the clothing and coverings of Rup Singh's family were burnt, and new clothes and blankets given to them.

133. No other case occurred in this village, and when I visited it again on the 15th of March the terrace was found to be re-inhabited, the people engaged in cleansing the houses and removing the manure to the fields; Rup Singh being prepared to re-build his house, so soon as he had received the promised compensation.

GAJULA.

134. Gajula is a small hamlet of three houses situated on the mountain side above Bált, and about a mile distant from it. The houses stand two together and one separate, thus :—

Gajula.



I visited this hamlet on the 2nd of February. Only one death from gola disease occurred in it, of which the following is the account given by the head of the family, a retired havildar of the late Kumaun battalion.

135. Early in December, a woman from Bált, fleeing from that village, came to Gajula, and passed one night there in an outhouse, by permission of the havildar's wife, who sat with her for a little time. In the morning the havildar hearing of the woman's presence obliged her to leave. Afterwards the woman died at Bált of gola disease.

On the 8th of December the havildar's wife was taken ill with symptoms of continued fever, on the 12th she was delirious, and a bubo appeared in the groin. In the evening she died, and her husband buried the body, together with the clothing and blanket, in a field about 20 yards from the house. After burying the body the havildar, taking his two children, left his house to inhabit a cave in the mountain side about half a mile distant from the house. The inhabitants of the other two houses also fled away to temporary sheds on the hill side, and at the time of my visit the houses were empty—all the people well.

The houses were clean and well kept, somewhat close hemmed by fruit trees, but wholesome looking places of residence.

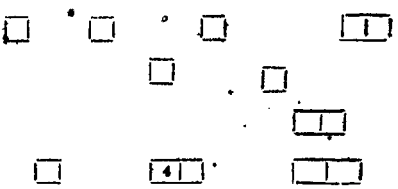
The people were looking after their growing crops, and prepared to return to their houses if so advised.

As a precautionary measure, green wood was burnt in the lower story of the havildar's house, and the house thoroughly filled with smoke for many hours. All cotton and woollen fabrics or rags found in or about the house were burnt. In March the people returned to their homes, and have all remained well.

SALLÁ.

136. Salla is a village of well-built scattered houses, picturesquely placed on a green hillock backed by high mountains. It is about four miles north of Bintola, from which it is divided by a mountain range. Roughly drawn, the houses are thus placed, on a sloping surface with eastern aspect :—

Sallá.



137. The following is the local account of golá disease here :—

Early in January the wife of one Kishná went to Bintola to enquire after her daughter, who was married to a man of that village ; her daughter was well, and has remained well. On the 13th of January Kishná was taken ill and died ; then Kishná's son, 18 years old, died ; then Kishná's daughter, four years old, died ; her death occurred on the 29th of March. In these three cases glandular enlargements were noticed before death in two. The two first died in their house ; the daughter died in a hut made for her just outside the house. The bodies were buried in a field below the house.

138. I visited the village on the 2nd of February, and noted the following local conditions:—A village of well-built double-storied houses, some old. All well scattered amidst cultivation of wheat and barley which covers the hillock on which they stand, and extends from the houses down to the bottom of the valley; fruit trees, principally walnut and cherry, mixing with the houses. A pleasant site of very wholesome aspect, as seen from far off. The lower stories of the houses generally noticed to be utilized as cow-houses, and consequently filthy.

This filthiness most noticeable below and around the house in which the deaths have occurred and the adjoining house. These two houses, standing alone, were noticed to be very old. The village padhán's (headman's) father had lived in it but having recently built a new house, the existing padhán had let the old house to Kishná, and now the old place is a neglected tumble-down filthy tenement, half house, half barn, and all cow-shed below, with manure piled beneath and around.

Many of the people have vacated their houses, and all have been put to great trouble by this outbreak of disease, which they attribute to the reprehensible conduct of Kishná's wife in visiting Bintola. All are apparently of opinion that the old house should be burnt, and many bring straw and wood to throw into the doorway for that purpose.

Of Kishná's family only two persons remain—his own and his son's wife,—who have been occupied during the morning in taking the grain out of the old house and hiding it in baskets under straw on the hill side.

The people object to this proceeding, but, being afraid to approach the women or the house, they could not prevent it. Now they ask that the grain may be burnt, pointing out its hiding place. The two forlorn women are of opinion that if the grain is destroyed they will starve.

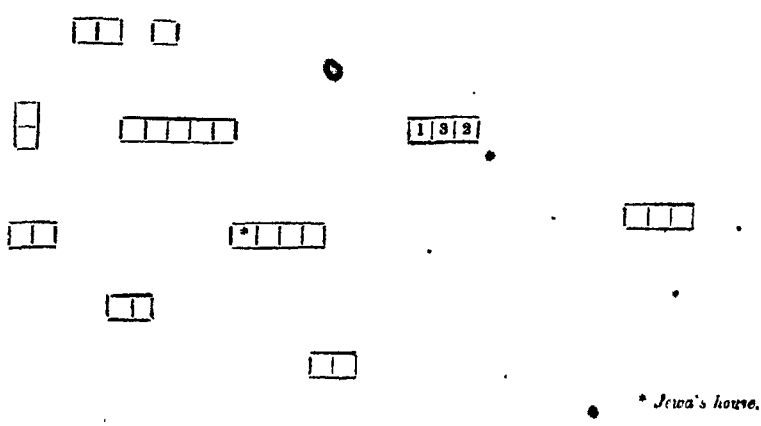
139. With the consent of the padhán, the old house, with its adjoining filthy tenement, were burnt down; the hut in which the daughter died was burnt; the two women's clothing and blankets were burnt and replaced. The hidden grain was divided, the wheat and rice being placed to one side, the madhua and choá (inferior grain) to the other. The former were given to the women, the latter burnt.

140. It was afterwards reported that one of the two women mentioned died of golá disease during my absence at Kausani, making four deaths in all in this family. Measures were taken to ensure the thorough cleansing and whitewashing of all the houses, and the people returned to their village in March without harm.

BIRAURA.

141. Biraura is a pretty considerable village, situated about one mile south-east of Sirar, with which, although a mountain intervenes, it is in communication by an ill-marked pathway. Its site is about two-thirds down the eastern aspect of the mountain, and its well cultivated fields extend around the village and down to the bottom of the valley in which the Sáoul river runs. The houses—well-built and double-storied, after the Bintola plan—are arranged for the most part in short terraces, from above to below on the quickly sloping site in the following order :—

Biraura.



* *Jewa's house.*

142. The history of the outbreak of golá disease here is as follows :—

During the months of January and February a man named Tejua, 30 years old, who lived at Biraura in one of the houses of a terrace of three, went several times to Sirar to visit Ganga Ram. He was present at Sirar on the 28th of January when I visited that village and brought home news of my proceedings. On the 20th of February, when I was engaged in the interior, Tejua was taken ill with symptoms of

continued fever, and died on the third day insensible, and without appearance of bubo or swelling anywhere. While he was sick, his young wife, almost a child, came from her parents' home and nursed him during the last two days of his illness, sleeping in the same room with him on the night of his death. In the morning she ran out of the house leaving the body in the house, where it remained four days.

The facts having been reported at Almora, the villagers were directed to burn the house and dead body together, which was accordingly done. Only they burnt two houses instead of one. No other case occurred prior to my visit on the 5th of March, when the following conditions were noticed and facts noted :—

143. Site wholesome everywhere, excepting beneath the houses and upon the stone platforms facing the houses, and the unwholesomeness there due only to the keeping of cattle in the lower rooms of the houses—a general practice, but with less marked results of filthiness than in other villages inspected. This comparative betterment, due to the existence of five detached cow-sheds in which some of the cattle are housed. The young wife of Tejua living alone in a grass hut of the meanest kind raised against the terrace wall of one of the fields. The inhabitants of the infected terrace have vacated their houses to live together in a cave; indeed two of the houses found to have been burnt out, and only one remains. The other people living in their houses. No rats known to have died here. New clothes and blankets given to the young wife; her old clothes and blanket burnt.

In the house next to Tejua's, one Buchua, his wife, his father, one son, and one daughter had resided. In the third house lived a widow woman and her son.

On the 6th of March Buchua's wife was taken ill. She had helped to nurse Tejua, and had given him water to drink while he was ill. Her symptoms were shivering, hot skin, quick pulse, pain in the head. On the third day she was delirious, a swelling appeared on her neck, and she died that night. This was the husband's account, as nothing was known of her sickness and death, until I again visited the village on the 13th of March. She was nursed by her husband in the empty house of one Jewa, died just outside the house, and was buried by her husband, who carried the body on his shoulder 30 yards or more to the grave. The burying was seen to have been well done, the grave heaped with stones. When she was taken ill all the people of the village vacated their houses to live in huts and sheds on the hill side. On the 16th of March Tejua's young wife was taken ill; she died on the following day, alone in her hut, and her body was, it is supposed, taken away by jackals. On the 25th of March Buchua's father died in the cave with symptoms of continued fever. On the 6th of April the son of the widow of the third house died in the cave with like symptoms. These deaths were reported some days after they had occurred, and the facts were recorded on the 14th of April when I again visited the village.

The two last dead had been buried by Buchua, who was found in the cave nursing his infant daughter, who has been ill eight days. The child's symptoms were—pulse quick, skin hot, countenance cheerful; has a large shining boil in front of the left thigh, which commenced to form on the 5th day of the disease. On the 16th of April the child was found peevish, but otherwise well; the boil, fluctuating, was punctured and much white pus flowed out. On this day all the contents of the cave, all the clothes and blankets of the remaining people living in it, were burnt; new clothes and blankets supplied, and the Buchua party, reduced to four persons, were removed to another cave.

The child recovered, and no other case of golá disease occurred.

The village was carefully cleansed, the houses whitewashed, and the people returned about the end of May, without, so far as I know, any return of disease.

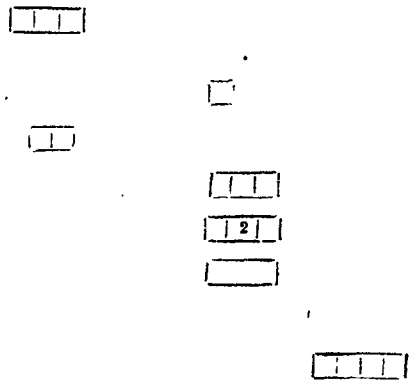
I should add that, to the best of my recollection, the third house of the terrace was burnt, and Jewá's house fumigated with burning sulphur; but I have no note of the facts.

MAICHOR.

144. Maichor is a village situated about half-way between Almora and Binsar, and near to the road which connects these two places.

It stands on a separate spur of hillock shape, and the houses have the following groundplan:—

Maichor.



145. The history of the outbreak there is thus recorded:—On the 12th of April a man aged 24, who lived in the centre house of a terrace of three, was taken ill with symptoms of continued fever, became delirious, and died on the 15th of April, after passing four fœtid, involuntary motions. No bubo or swelling appeared. He was nursed in his house by the other members of the family, and buried by his grandfather and a woman.

The village was inspected on the 16th of April. The lower rooms of the houses were noticed to be utilized as cow-sheds with the usual result.

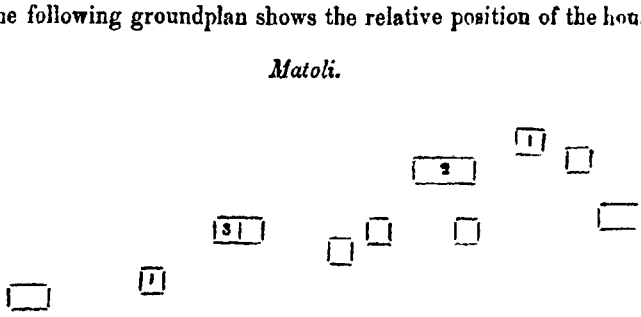
The houses of the terrace were sealed up, the people living in it directed to hut themselves separately far from the village site. The clothes of the compromised family, five persons in all, were burnt, and new clothes given to them. On or about the 24th of April, when I was at Taili-hat, a brother of the first man who died, and who lived in the same house, was taken ill and died with symptoms of continued fever. No other case occurred.

The village had been cleansed, the houses whitewashed, and the people were all well when I visited it on the 1st of June.

MATOLI.

146. Matoli is a village of well scattered houses, its lands adjoining those of Maichor. The following groundplan shows the relative position of the houses:—

Matoli.



Seven deaths in all occurred here, and the following is the history of the outbreak:—

147. On the 12th of April, on the same day as the first case occurred at Maichor, the wife of one Tejua was taken ill and died on the 3rd day. No appearance of bubo was seen on her person, and her body was burnt. The day after she was burnt, her infant of one month was taken ill and died in 48 hours; its body was buried. On the 27th of April Tejua's niece, a girl of 16, was taken ill and died on the sixth day; a large swelling was seen in her neck. The above three persons were nursed and died in one house, and the body of the niece was buried in the floor below the house, upon which she lay when she died; for, seeing the swelling, her relations were afraid to touch her body for removal, but dug a trench alongside the body and pushed the body into the trench. After this girl died all the people vacated their houses to live in huts on the hill side.

In the house nearest to that of Tejua lived Jewa, his brother, and in reality the two families lived as one. On the 2nd of May a boy of 12, who had lived in Jewa's house, was taken ill and died in four days.

While the boy was ill, a son and a niece of a *Dom* named Bijua were taken ill and died in three days. Bijua, it was stated, had assisted at the burial of Tejua's niece. Lastly, an old man named Junia died on the 14th of May.

148. During the period in question I was engaged amongst the villages of the interior, hence this imperfect account. I inspected Matoli on the 1st June and recorded the above particulars. No case of disease had occurred since the 14th of May, and the people desired to return to their houses, but were afraid to do so, on account of the dead body lying in the floor of Tejua's house.

Tejua stated that he would never inhabit the house again or touch the grain it contained, and with his consent the house was burnt with its contents.

Shortly afterwards the people returned to their homes and have remained well. In the meanwhile measures were taken to cleanse the village and whitewash the houses. At my inspection only the *Dom* quarter was noticed to be particularly filthy.

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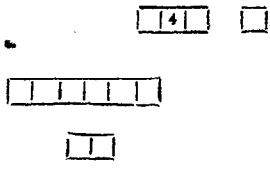
149. The group of villages affected in pargana Bora-ki-Rao (see page 44) are scattered principally along the line of road which leads from Almora to Baijnáth, and the following particulars were recorded during a tour of inspection which employed me from the 18th to the 26th of February:—

BAUNRI.

150. A village of Chatris, situated two miles south of Sumesar, 17 houses in all, of which those in the immediate neighbourhood of the affected house present the following groundplan:—

Baunri.



The following is the history of the outbreak of Mahámári disease here:—

On or about the 28th of November last a man named Tika Ram was brought home sick from Kausani, where he was employed in the tea factory, being very skilful as a tea-drier. He was suffering with symptoms of continued fever, and died in his house the day after he got home. Nine days after his death two children of the same

house were taken ill, their symptoms being intense fever, followed by delirium (*bakne laga*), on the second day insensibility, and death on the third. While the children were ill, Tika Ram's eldest brother, who also lived in the same house, was taken ill and died on the third day with the same course of symptoms. No diarrhœa or sickness was noticed; no bubo or swelling occurred in any case. Tika Ram's body was carried to the established burning place by his four brothers, accompanied by several people, and burnt. The other three bodies were buried by the three remaining brothers. After the eldest brother was buried, all the remaining people, 15 or 16, of the affected terrace of three houses vacated their homes to live in a long shed about 40 paces distant from the terrace. All were found well there on the day of my inspection, the 18th of February. The other people remained in their houses, and all are well. No rats are known to have died here.

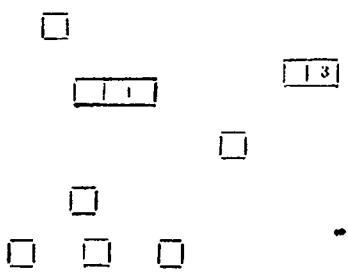
151. At my inspection the houses generally were seen to be filthy in and around the ground-floor, by reason of the housing of cattle in the lower stories. The people were seen to be employed in building separate cow-sheds. Measures were taken to ensure the careful cleansing of the habitations, so soon as the cattle could be put outside. All cotton and woollen fabrics found in Tika Ram's house were taken out and burnt, together with some coarse grain of bad quality. The house was closed up and fumigated for some hours, and the family were cautioned not to return to it for some time longer. I do not know when they returned to the house, but no death has been reported from the village since the date of my inspection.

TÁNDA.

152. At Tánda, about 1½ mile south of Sumesar, only one case occurred, of which the history was thus given by the padhán of the village at the time of my inspection, the 20th February. Towards the end of November last, a young man came home on a Saturday night sick from Kausani tea factory. He had symptoms of continued fever, but was able to walk home, about a seven-mile journey. On the Tuesday following he became insensible and died in one of two adjoining houses thus [| |] in which a family of 12 persons resided. No bubo or swelling was seen on his person, and his body was burnt in the established burning place at the river's edge. Twelve men accompanied the body to the burning place, carrying the body in turns. None of these men have been sick. The 11 remaining persons of the family continued to reside in their house, and none have been sick. No rats died here.

SAJOLI.

153. Sajoli is a village of widely scattered houses standing just off the highway about a mile south of Sumesar. Twelve houses in all, placed as below :—



154. The history of golá disease here was thus recorded at my visit on the 18th of February:—About six weeks ago an old man, who lived in one of two adjoining houses highest placed in the village, was taken ill and died, in three days, insensible; during the last day he had diarrhœa. Nothing particular was thought of his illness and death, and his body was burnt as usual. Fourteen days after his death two young girls of the same house were taken ill; one died after four days' illness, the other after five days' illness; and in this last case a boil-like swelling arose on the girl's chest before she died.

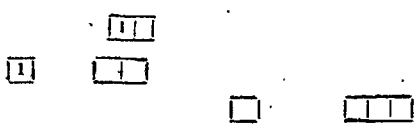
Immediately after these girls died and had been buried the remaining members of the families inhabiting the two houses vacated their homes to live on the hill side. The other people remained at home as usual. Now all are well, and no person has been ill since the last girl died.

At my inspection I noticed that two very good separate cow-sheds existed in this village, but not belonging to the people of the vacated houses. These were seen to be extremely filthy around and below, by reason of great accumulation of manure, cattle having been lodged as an established custom in the lower rooms. The owners of these two houses had taken the grain out of them, and desired that they should be burnt. But, under the circumstances, I thought it might suffice to fumigate and thoroughly cleanse the houses, and burn all cotton and woollen fabrics they contained. Measures were taken to effect this, and the families cautioned not to return to their houses for some time longer. No report of any return of the disease has reached me.

PHÁLIÁNTI.

155. A hamlet about 3½ miles east of Sumesar on the road to Bagesar, containing nine houses placed as follows :—

Pháliánti.



The history of golá disease here was thus recorded during my visit on the 19th of February :—

156. Near the end of November last, a youth aged 16 came home from the Kausani tea gardens ill. It had been reported at his home in Pháliánti that he was ill at Kausani, and his father, with four other men, went to fetch him home. His father carried the sick youth on his back to the top of the Kausani hill, and there a rough dándi was made, in which he was carried by the five men to Pháliánti. When the youth arrived at Pháliánti he was insensible, and he died soon after arrival. The body was taken to Bagesar by seven men, a distance of about nine miles, and burnt at the much frequented ghát there. No bubo or swelling was seen in this youth's case. About eight days after the first youth died, his brother, aged 17, came home from Kausani on foot on a Saturday evening ill. On Sunday morning a swelling appeared in his armpit, and in the evening he died. The body was hastily buried outside the village site, but jackals pulled it out of the shallow grave provided, dragged it into a ravine, and ate it. In this case the remaining members of the family vacated their houses immediately after the youth died, but three persons continued to live in the house to which the first youth was brought, as the sick boy was never carried into the house, but put down to die outside.

No person of the hamlet has been ill since. None of those who carried the sick youth or the body have suffered. No rats have died here.

157. At my inspection the hamlet was found remarkably clean everywhere. The houses, neatly washed with red clay, were wholesome above and below. The houses were said to be washed with the red clay every 15 days as a custom. A separate cow-shed was noticed to be utilized for its proper purpose.

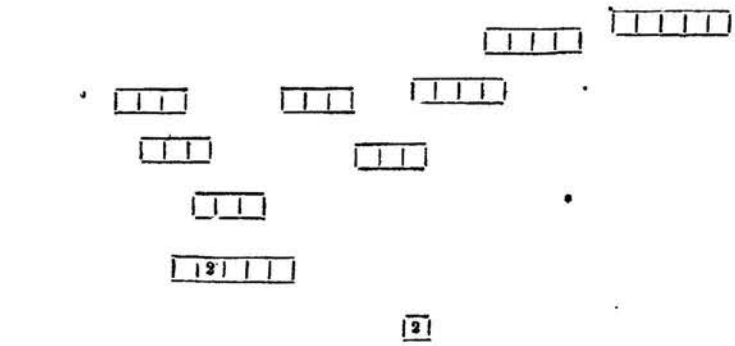
The two boys who died here inhabited the same room at Kausani.

CHANI.

158. Chani is an important village about two miles south of Kausani tea gardens. It stands on a hill, a little way off the highway between Sumesar and Kausani, and its cultivated lands extend principally in the widish valley of the Kosi river, which takes its rise in the great Pingnath mountain east of Chani, and flows beneath the village.

As a site of habitation no place could be better chosen than Chani, on the sloping brow of a somewhat separate hill which stands out from the great mountain behind it. Its high site provides perfect drainage, the terraced slope of the hill and the spreading valley below provide fertile land carefully cultivated, and, although all is green around, very little of excessive vegetation exists anywhere. The houses are arranged on the sloping surface, in short terraces, somewhat after the following plan :—

Chani.



159. I inspected this village on the 21st of February, and found its pretty numerous people in great trouble; their houses and village site empty and desolate ; the inhabitants miserably lodged in grass huts amongst their crops in the valley.

This condition had resulted from an outbreak of golá disease, thus described :—

About the middle of January the wife of one Subhan Singh who lived in a detached house lowest placed of any in the village was taken ill with symptoms of continued fever, and died on the fourth day. Then her son was taken ill with like symptoms, and died in three days. This mother and son died about the same time, and as bubo was noticed in the case of the mother, their bodies were buried about half a mile outside the village site, some twelve men assisting.

The mother had been nursed by Guman Singh's wife, who lived in a house of a terrace adjoining Subhan Singh's house. On or about the 27th of January Guman Singh's wife was taken ill and died, unattended, in the lower room of her house. At the time of her sickness she had a suckling infant girl which remained with her, and after the mother died no person of the village was found brave enough to rescue the infant. The husband questioned on this point said, that as the infant had taken its mother's milk during her illness, he knew it must die, and so he left it with the corpse. It died two days after the mother, and then the husband drew the bodies out of the lower room, and hastily buried them in front of the house.

Excepting for this hasty visit of the husband, no person had entered the village site since the last woman was attacked, and all had remained well.

It was said that rats had died in Subhan Singh's house before his wife died, and the cause of the outbreak of disease was locally attributed to the presence of certain ghi and grain which Subhan Singh had recently imported from a village of Dánpur and stored in his house. Subhan Singh was at Bagesar engaged in conducting some lawsuit or quarrel when his wife and son died; returning home he was afraid to enter his house, and retired to Ána in Kathiúr, where he has another house.

160. On inspecting the village, the lower stories of the houses were found filthy, as a rule, owing to their utilization as cow-sheds ; the upper stories without ventilation, close smelling, and unwholesome. Two dead rats were found below Subhan Singh's house, and the burial place in front of Guman Singh's house was recognizable by portions of infant remains, which had been partially eaten by birds or jackals.

The two infected houses were burnt with their contents, in accordance with the general desire, in which the padhán joined. Measures were taken for the heaping of a large mound of earth and stones over the remains buried in the village site, and for the cleansing of the houses and their whitewashing inside and out.

The people returned to their homes in March, and there has been no return of disease since.

BEHTA TALLÁ.

161. Behta is a village just off the high road about midway between Kausani and Baijnáth. It is divided into Behta Mallá (upper) and Behta Tallá (lower). Behta Tallá consists of a terrace of three well-built houses, thus :—

and the people of the three houses live as one family, all being related and all Brahmans.

At the beginning of March it had been reported that the chief person of this family having attended, in his character as Brahman, the funeral of the wife of Subhan Singh at Chani, had been attacked with golá disease and had died.

Making local enquiries, at the time of the journey of which I now write, this had been strenuously denied. The eldest brother had died it was allowed, but of malarial fever, and not of golá or any contagious disease, and so the matter rested.

During another journey of inspection in April which led me this way, I heard frequent reports of the happening of other cases in this family ; and so persuaded were the people of neighbouring villages, of the presence of golá disease at Behtá Tallá, that no outsider would go near the place. Under these circumstances I thought it advisable to make more careful local enquiry, when this second opportunity offered.

162. On the 23rd of April I inspected the three houses of Behtá Tallá, and examined the people living in them. In the house of the man who had died at the beginning of March, two women and a boy were found suffering from continued fever, having been ill several days. The women would not permit a careful examination, but in the boy's left groin a prominent suppurating bubo was found. These three persons had evidently been very dangerously ill, but seemed likely to recover. The people here behaved in a violent manner, and endeavoured to prevent any close examination of the sick persons. They could not be persuaded to vacate the terrace, nor would believe that any infectious disease was present amongst them.

With considerable labour the infected house was burnt out, after all the valuables, cooking vessels, and tools had been removed. All the clothing and blankets of the compromised family were burnt and replaced, all cotton and woollen fabrics, mostly rags, in the house were burnt. There has been no report of any death from this village since, and it may be concluded that the three sick persons recovered.

KAUSANI.

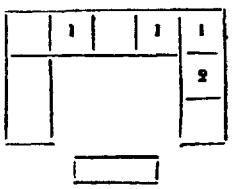
163. There is no village proper at Kausani, so far as I could make out. The whole of the land known as Kausani is occupied by the celebrated tea gardens of that name, which extend down the upper half of the north-eastern slope of a great mountain overlooking the Baijnáth valley in which the Gúnti river flows.

On almost all the land of this large estate the tea plant is cultivated in slopes and terraces with great care and success. The land absolutely clear and clean everywhere, except for the well pruned tea plants, which dot its surface in well ordered rows.

Upon the estate a large company of (between five and six hundred) gardeners are constantly employed, and these people are lodged in short ranges of huts scattered in different portions of the estate.

164. The outbreak of golá disease which occurred here was thus recorded at my visit of inspection in company with Mr. McMaster, the Manager, on the 23rd of February.

The cases of disease were confined entirely to one range of eight huts, of which the following is a groundplan :—



In all five cases of the disease occurred, namely, one of a man who died in his hut on the 28th of November, and who had a long swelling in his armpit when he died ; one man who went away sick and died at Tánda ; one man who went away sick and died in Baunri ; and two boys occupying the same hut who went away sick and died at Pháliánti. All the cases occurred about the same time, namely, towards the end of November and beginning of December ; and immediately after the disease was known to be golá, the seven or eight persons who remained unaffected vacated their huts to sleep elsewhere, and all have remained well. A fortunate circumstance as regards the prosperity of the estate, for symptoms of a great fear were noticed amongst the general body of gardeners, who would assuredly have fled away to their homes, had more cases occurred.

I saw the persons who had vacated the huts and remained well. The principal of these was a chaudhri or chief of a gang. The chaudhri stated that for days before any man was taken ill, rats, which were numerous in the range, were found dead in every hut, and he particularly remembered the fact because, at the time, the men rejoiced over the death of the "destructive devils" when they threw them out in the morning.

Two dead rats were found in one of the huts at the time of my inspection.

165. With regard to the cause of the outbreak, the local opinion was that it was due to the fact that the father of the Pháliánti boys had brought ghí and grain for their use from Kajuli (the village next inspected).

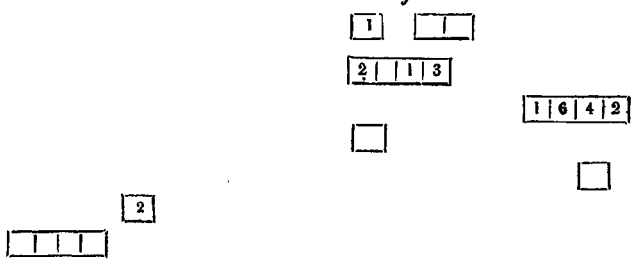
On this point Mr. McMaster stated that when the man who died at Baunri went away ill, he left a considerable store of grain and other things in baskets and boxes in his hut. Desiring to protect the man's property, Mr. McMaster had it removed to a loft above one of his drying rooms, and there locked it up. Soon after a very unpleasant smell was noticed in the drying room, and the unpleasantness being traced to this store of property, the boxes and baskets, with their contents, were immediately taken out of the loft, piled in a heap in the open, and burnt. The cause of the bad smell was not traced to any particular article of the property ; no dead rats were noticed amongst it. It all appeared to smell badly, and was all burnt without delay to prevent the spread of a general alarm concerning it.

166. Since the outbreak occurred the infected range has remained vacant. The people have cooked their food in an open shed fronting it, but no man has slept in the huts. These appeared as fairly well built, one-roomed tenements, with thatched roofs, well plastered inside with clay, and absolutely clean inside and outside, the precincts clear and clean. With the consent of Mr. McMaster, to whom my acknowledgments are due for much consideration and attention, the infected range was burnt down, together with the open shed facing it. Up to the present time there have been no more cases of the disease at Kausani.

KHAJÚLI.

167. Khajúli is a village of poorly-built thatched houses, situated on a sloping site bordering the Gúnti river, two miles above Baijnáth. It consists of two portions—an upper and lower,—divided by a shallow ravine, and the houses stand somewhat in the following order :—

Khajúli.



168. The outbreak of golá disease commenced here about the 3rd of October last amongst a Dom community who inhabited a terrace of four houses (right of plan). Of 25 persons inhabiting this terrace 13 died—three men, two women, and seven children; all died with the same symptoms of continued fever, delirium, insensibility, and death on the 3rd, 4th, or 5th day; and swellings arose in the armpits and groins of several before death. The last of these deaths occurred on the 2nd of November in a grass hut on the hill side, for the people of these houses vacated their homes towards the end of October. Certain of these Doms were employed to husk rice during October on the platform of a neighbouring terrace inhabited by the Chatri owners of the village. On the 19th of October a member of the Chatri community was attacked with the disease, and died on the 22nd in the house nearest to the Dom terrace. A few days afterwards two other members of the same Chatri family were attacked and died; their deaths being speedily followed by the deaths of three other persons of the same terrace who had nursed their sick friends. Then the Chatri community vacated their houses. Lastly, in this upper part of the village, a deaf and dumb Brahman, who lived alone in a house above the Chatri terrace, died.

During the time the sickness prevailed in the Dom terrace, certain Doms who lived in a detached house in the lower portion of the village paid frequent visits to their friends above, sat with and nursed the sick. Two persons of the lower placed family were attacked with the disease, and died towards the end of October; then the people of the lower portion vacated their houses.

169. I inspected the village on the 25th of February and found it still empty, the people living in grass huts outside the village, but desiring to return to their old houses. The village was seen to be remarkably clean as a rule, but the lower rooms of the Chatri terrace had been used as cow-sheds. The site appeared wholesome in every respect.

About the beginning of January the Chatri owners had burnt down the *Dom* terrace and Dom detached house, so that nothing remained to denote their sanitary state at the time of the outbreak. It is probable that they were as carelessly kept as Doms' houses in general, but they had no lower story, and consequently cattle could not have been lodged beneath them.

No cause could be assigned for the outbreak by the principal men of the village, who also denied that any *ghí* or grain had been supplied to the father of the Pháliánti boys, as stated at Kausani. The only stranger believed to have visited the village since the outbreak commenced was a Dom from Chání, who came in October to enquire after his friends, and slept one night in the house of one Anuá, who was ill with the prevailing disease. Dead rats were found in the houses of the Dom terrace first attacked. All those who died were buried. No case of the disease had occurred since the 2nd of November, and the Chatris would like to return to their houses; but dreaded the attempt because of the infected houses which remained.

The Chatri owners were persuaded, without difficulty, to burn their infected houses in my presence. The people returned to the village in March, and all have been well since.

MANGALTÁ.

170. A hamlet of two separate houses, situated on the Gúmti river, about two miles higher up the stream than Khajuli. Inspected on the 25th February.

Three deaths from golá disease occurred in one house. The history of the outbreak is as follows :—

During October a woman of Mangaltá was employed in cutting the crops at Khajúli, coming home at night to sleep. This woman sat with and nursed one of the Chatri women who died of golá disease at Khajúli. Four or five days afterwards she herself and another woman of her house were attacked with the disease, and both died after three days' illness. During their illness a daughter of one of the women was attacked and died on the 5th day; a bubo appearing in her armpit before she died. This child died outside the house in a hut on the hill side, as after the women died, the remaining members of the family, six persons, vacated their house; the father taking his sick child to a separate hut and nursing it. When the child died the father threw its body down a steep place, and pushed earth over it, but the jackals took the body away. The bodies of the women were disposed of in the same manner.

The people of the house are still living on the hill side and are all well.

171. The infected house was an old thatched tenement of two rooms; the lower story a filthy cattle place. The dead body of a buffalo lay at one corner of it. It was burnt.

AJULA.

172. Ajula is a village of little importance, situated about three miles north of Baijnáth. The village with its lands forms part of the Ajula tea estate.

I inspected this village on the 26th of February in company with Mr. Norman Troup, the Manager, who was extremely obliging and attentive, aiding my investigation not only here but also in the two villages—Khajúli and Mangaltá—previously mentioned.

The people of Ajula village are principally employed in rearing and tending cattle, the resulting manure being utilized in the tea gardens of the estate. Some of the people are also employed as gardeners or manufacturers of tea.

Deaths from golá disease having been reported from this village, it was necessary to visit it and record the local history of disease. But the results of the record render it doubtful whether golá disease was ever present amongst the population concerned.

173. At my inspection the village was seen to be remarkably well kept, the habitations clean with clay washing, both in the upper and lower rooms; the latter being utilized as store places and for the cooking of food. The cattle were noticed to be lodged in long separate cow-sheds near to the habitations.

After the season of rains it is customary for the people to drive their cattle to the forest lands and there graze them for some months; the cattle and their keepers living continuously in the forest.

The first death reported from golá disease occurred in the case of a man who, last November, accompanied by his wife and child, took his cattle to the forest as above described. On the fourth day after he reached the forest he was taken ill, and died in his hut after six days' illness. He was nursed by his wife during his illness. Both wife and child returned to the village, after three months' absence, well. The second

and third deaths reported occurred in like manner in a forest hut 15 days after the forest was reached, and death occurred on the 5th or 6th day. The fourth and fifth deaths reported occurred during December in one house of the village. The remaining members of the family vacated the house during part of January, but have been living in the house for the past six weeks, and are all well.

The sixth case was the child of a Dom who died after nine days' illness.

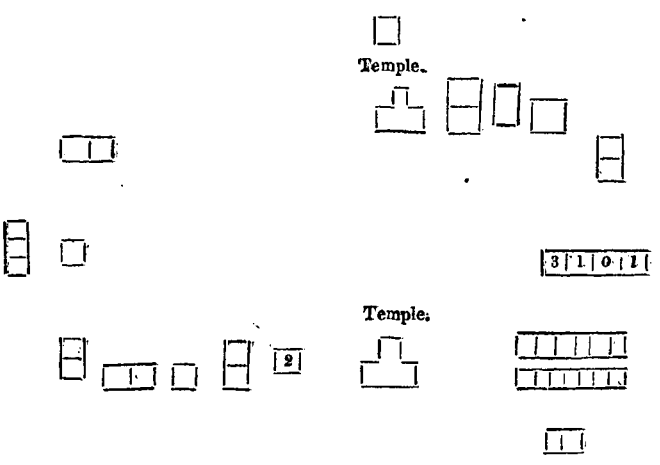
The seventh case—a syphilitic man—said to have died of dysentery.

With the exception of the last case, all these persons were said to have died of fever, but no bubo or swelling was noticed in any case. All the houses have been inhabited for the past two months or six weeks, and all the people have remained well. When the two persons died in one house, all the people vacated their houses for a period of 12 days, but having no proof of the presence of golá disease, a longer stay outside was thought unnecessary.

TAILIHÁT.

174. Tailihát stands close to Baijnáth. Its site is nearly level, in a bend of the Gúmti river, and it is an old centre of population—contains Buddhist temples of dark granite, one 600 years old—and may have been a place of some importance when Kathiúr was separately governed. Now it contains, besides the important temples, two or three good houses of Brahmans or *pujáris*, and many poor thatched houses of modern construction, well scattered over the site after the following plan :—

Tailihát.



The site is close hemmed by the river on three sides ; is made up in great measure of boulders mixed with earth, and is probably liable, if not to flooding, to excess of moisture in the rainy season.

175. Golá disease first appeared here early in April last. I inspected the village on the 24th of April, and the history of the outbreak is thus recorded :—About the end of March dead rats in considerable numbers were found in the houses of three terraces (right of plan), and early in April three persons of one house in these terraces were taken ill and died after four or five days' illness, swellings having arisen in their armpits or groins. So soon as the disease was known to be "golá," all the inhabitants hastily vacated the village, to reside in huts on the hill side far away, excepting the people of the infected terrace, who were all friends and people of one caste. They nursed the sick and buried the dead bodies. Two days after the first three had been buried, two more persons of the same terrace were taken ill and were removed to huts outside, where they died. Other friends of the people of this terrace lived in a detached house near to it, and visited those who were first taken ill. Two persons who had resided in this house were attacked with the disease, and died in huts outside.

The last of these died on the night before my inspection. He was said to be ill, and I went to see him. On approaching the temporary hut in which he lay, about a mile from the village, a jackal ran out of it, and the man was found dead; the body abandoned. A large swelling in his groin testified to the cause of death. Fuel of pine-wood was gathered from the hill side, and the hut and body consumed.

With great difficulty the remaining members of this man's family—three women—were found. They were in great terror and distress—one just recently confined. Their clothes and blankets were taken from them and burnt; new clothes and blankets being given to them. The remaining persons of the infected terrace were re-clothed in like manner.

The people were desirous that the infected houses should be burnt, and also the houses of the two adjoining terraces, which had been inhabited by Doms, and in which rats had died. The Dom community had vacated their houses immediately after the disease declared itself in the other terrace, and had remained all well.

The infected terrace and the detached house were burnt.

No history of infection could be gathered here; no cause could be assigned for the outbreak. The houses were not particularly unwholesome. As a rule, the cattle were lodged in separate cow-sheds; some of the lower rooms had been utilized for this purpose, but the resulting manure had in great measure been recently carried to the fields which had just been ploughed for rice-sowing.

Measures were taken to provide a supply of food for the homeless people, who were cautioned not to approach the village site—a warning hardly necessary, for, with the exception of one Brahman, no person would go to it with me.

No new case has been reported from this village. The people returned to their houses in June, and all have remained well so far as I know.

KÚRÚRÁ.

176. Kúrúrá is the Dom quarter of Púrálá village, about one mile east of Baijnáth, on the Gumti river.

Kúrúrá consists of two terraces containing 11 houses, thus—

The houses are all inhabited by Doms, and are placed far from, and much lower than, the houses of Púrálá proper.

177. Only one person died of golá disease here. The following is the history of the case:—On the 9th of April a Dom was taken ill. He suffered for 13 days with symptoms of continued fever, much pain in the head, and then died. A swelling rose in his armpit on the sixth day, and remained until he died on the 22nd of April. I visited the village on the 25th of April, and found the compromised family of five persons living alone in a hut amidst the village fields, their house being empty.

All the other houses inhabited as usual; all the people well. By general consent the compromised family had been isolated and so remained. The dead body had been buried. The case of disease was attributed to the fact that the dead man's brother had visited the people of Khajúli early in March, but as the last death from golá disease at Khajúli occurred on the 2nd of November, it is not likely that the case was connected in any way with the brother's visit. The Doms of Kúrúrá have relations and friends at Tailihát, and the infectious cause may have come from there.

The five remaining persons of the family were re-clothed, their old clothes and blankets being burnt. The entrance ways of their house were carefully built up with stones, after the house had been fumigated, and the family were directed to live in their hut apart for at least a period of two months. The family remained well, and no other case of disease has been reported from Kúrúrá.

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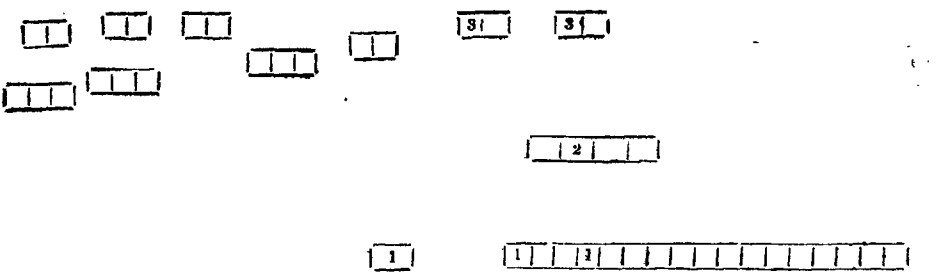
178. The group of which I have now to report consists of only two villages, Bhándárgáon and Dugorá, in Attargoli (see page 44)—a portion of Kumaun immediately north of the important Ranikhet cantonment. The outbreak of disease in those two villages was severe and prolonged, and cause of much anxiety, by reason of their proximity to that cantonment.

BHÁNDARGÁON

179. Bhándargáon is an important village about seven miles north of the Ranikhet cantonment. It contains about 62 houses, scattered mostly in terraces, on the upper half of the eastern slope of a hill of moderate height which is bordered by the highway connecting Almora with Srinagar. The ground plan of the portion of the village affected by the disease may be roughly sketched thus —

Bhándárgáon.



180. I inspected this village on the 14th of February, and again on the 20th of April, and the history of the outbreak of disease was thus recorded :—

There is a well remembered local history of an outbreak of golá disease in this village sixteen years ago, when 42 persons are said to have died of it, and at the same time the disease prevailed in the neighbouring village of Saguni—a fact confirmed by the padhán of Saguni, who was a well grown man at that time. The deaths at Bhándargáon on that occasion were said to have occurred principally in the very same houses affected now, and specially in the four upper houses inhabited by the padhán and his family.

181. The present outbreak commenced in October last with the illness of a man who lived in a detached house, lowest placed of any in the village. He died after five days' illness with symptoms of continued fever, a swelling appearing in his groin the day before he died. His body was buried in a shallow trench at the back of the house. In the next adjoining house, one of a terrace of 17, lived friends of the sick man who came to him when he was ill. The next person taken ill lived in that house, and also died in October. In November another person died in the fourth house of the terrace. In January six persons died, two in a house in the middle terrace, and four in the upper houses belonging to the padhán. Of these sick persons one was buried in the middle terrace at the back of the house in which the death occurred, and all the other bodies were hastily buried in different portions of the village away from the houses. But the burials were hastily done in shallow trenches, and jackals and the village dogs had torn the bodies up to eat them. The people knowing this, had killed all their dogs with clubs; eight skeletons of dogs lying in different places testifying to the truth of this statement. This history was recorded, during my visit of the 14th of February, with considerable difficulty ; the people being reluctant to afford

information, evidently disliking my visit. I think it not unlikely that more than nine deaths had occurred, but can only record the facts as stated by the people. The last death had occurred on the 25th of January, and all the people were well on the 14th of February. They had vacated their houses to live in grass huts far away from the village site. At this inspection it was noticed that considerable efforts had been recently made to improve the sanitary aspect of the village by removing manure to the neighbouring fields. Yet enough remained to show that the lower rooms of the houses had been crowded with cattle at night, as an established practice. In connection with two or three of the houses, substantial cattle-sheds were noticed, but the roofs of some of those sheds had fallen down, and not one of them seemed to have been utilized for their intended purpose. At present the cattle are living out of the village with the people.

182. The principal men here were of opinion that the disease of which the nine persons had died was sanjar and not golá, disbelieving the statement that the first case had died after the appearance of bubo.

No swelling had been seen in any subsequent case. The symptoms had been continued fever, delirium, insensibility, and death on the 3rd or 4th day.

They desired no help from me, but requested that I would report their labours for the cleansing of the village.

They were earnestly advised not to return to their houses for a considerable period of time, or until after the village had been thoroughly cleansed and the houses whitewashed inside and out.

183. All remained well with this population until the 14th of April. Early in April, the padhán (a thokdár) and his son returned to their houses in the upper part of the village where four persons had died. On the 14th of April the thokdár's wife was taken ill, showed unmistakable appearances of "golá" disease, and died on the 17th. Seeing her hopeless condition, the thokdár hanged himself to a beam just above the place on the floor where his wife lay dying, and in the morning the son found both father and mother dead. News of this having reached me, I returned to the village on the 20th of April, and with the son's permission and assistance burnt the house, and re-clothed the four remaining persons of the family, burning all their old clothes and blankets. The son, a man of 38, had buried his father and mother. He seemed much depressed, but helped heartily to burn the infected house, after he had removed all the valuables it contained—money, papers, tools, and cooking vessels.

The people of the other infected houses had not returned to their houses, and were all well. The village was seen to have been further cleansed; all the manure carried away to the fields. This work had been done in the daytime, at intervals, but no person had stayed the night in any house of the infected portion of the village since my first visit, excepting the thokdár and his family as described. The thokdár's son inhabited the house adjoining his father's. Some days after his father and mother had died, the son, who had removed to a hut outside, was taken ill, and also died of golá disease. I do not know the date of this last occurrence as, at the time, I was engaged in the Munshári country of upper Dánpur.

No other death has been reported from this village. During May and June the people lived outside in huts, and I cannot say when they returned to their homes, but think they must have done so when the rains commenced.

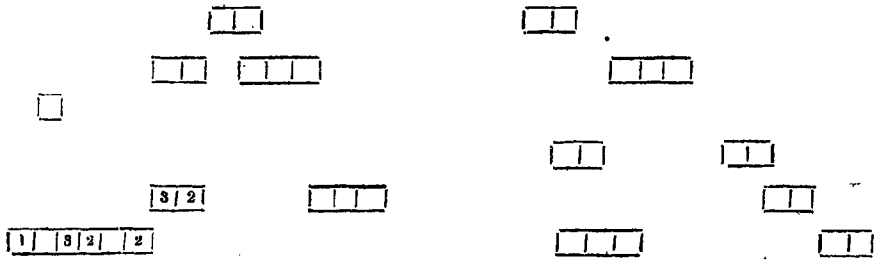
DUGORA.

184. Dugora is a very large village five miles north of Ranikhet divided into east and west Dugora by a branch of the Gágas river, which flows in a deep ravine. So that the two portions of the village stand high placed on the sloping surface of opposing mountains—a distance of fully half a mile dividing them.

This centre of population is much isolated, being reachable from the highway only by a dubious footpath, between three and four miles long.

185. Golá disease commenced in east Dugora, of which the following is a rough groundplan ; all the houses being well built, double-storied tenements, roofed with stone :—

East Dugora.



The first case occurred in one house of a terrace of six on or about the 28th of November last, and during December and January twelve other persons of this terrace and of two adjoining houses were taken ill, the last on the 26th of January ; all these 13 persons died. The inhabitants of the eight infected houses numbered 28 persons, all relations or friends, of whom almost half died.

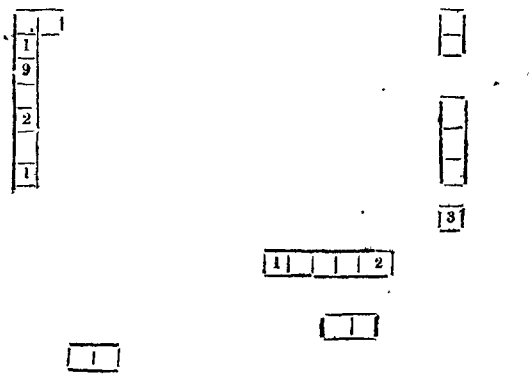
The symptoms of the disease were those of continued fever, attended with delirium on the second or third day, and death generally on the third or fourth day. In some cases death did not occur until the sixth or eighth day ; and in those cases glandular enlargements were seen in the armpit, or groin, or neck. The people knew of no cause for the outbreak. Dead rats had been found in the houses both before the outbreak and while it lasted.

186. I inspected the village on the 15th of February. There had been no death since the 26th of January. The people of the infected houses had left their homes during December to live on the hill side in grass huts, and some of those who last died, died in huts—all the other people had remained in their houses. At the time of my visit the remaining people of the infected houses made a show of having returned to their houses, but were careful only to sit on the outer stone platform in a row.

Proofs of the former practice of housing cattle in the lower rooms were plentiful enough, and the custom was not denied. But a great amount of cleansing had been effected, in obedience to orders received previous to my visit, and, as a rule, all the houses of the village were seen to be fairly well kept.

187. The plan of west Dugora is as follows :—

West Dugora.



In this village the first death from golá disease occurred in the house of a barber, who had visited the sick people in east Dugora. This death occurred in one of a terarce of five houses in December, and was quickly followed by two other deaths in a

house of the same terrace. When I first visited the village on the 15th of February only these three deaths had occurred, and the people of the families concerned denied that they had been due to golá disease, saying that two had been due to dysentery and one to asthma. They acknowledge that the bodies had been buried, and the houses of the terrace were vacated ; both very suspicious circumstances. As neither the people of the east nor west Dugora were desirous of any interference on my part for the prevention of further disease, and especially would not consent to the destruction of any clothing or property, I was obliged to remain content with advice to them not to return to the houses in which deaths had occurred for at least a period of two months, nor until after the houses had been thoroughly cleansed and whitewashed.

188. As a continued prevalence of golá disease was reported, I visited Dugora a second time, on the 19th of April, and found that this continued prevalence had been restricted to west Dugora. In all 16 deaths had occurred in this second outbreak, of which the following is the history :—Early in March three persons of the family in which two had died, as previously stated, were taken ill and died with unmistakable symptoms of golá disease. This family inhabited the corner house of the terrace, and a detached house adjoining it. These last three deaths occurred in the detached house. The other 13 deaths had occurred amongst the people of a terrace of eight houses highest placed of any in the village, and nine of these deaths had happened in the family of one Subhán Singh, whose mother, wife, son, son's wife, daughter, and four nephews died. In this family the first taken ill was the wife. She had been absent at Hardwár at the beginning of March, and was taken ill six days after her return to her home at Dugora, on or about the 12th March. She died after five days' illness, and the other deaths followed in quick succession, the last occurring on the 14th of April. The symptoms were continued fever, pain in the head, delirium, insensibility, and death after from two to five days' illness, and in some cases swellings arose in the armpit or groin. All the people of this terrace were either related or near friends. Cattle had been lodged in the lower rooms as usual, but the resulting manure had been removed to the fields, it being the time of ploughing, and the houses, although close, bad smelling tenements, were not unusually filthy.

189. With the permission of the owners and their assistance, Subhán Singh's house and the detached house in which three deaths had occurred were burnt out. The clothing and blankets of the remaining members of Subhán Singh's family (five persons) were burnt and replaced ; and the people hutted on the hill side, were cautioned not to return to the village site until the commencement of the rainy season. These people were difficult to manage; golá disease being apparently unknown to them before, they persisted in remaining hutted, village fashion, several huts together, the members of infected families mixed with the rest. I expected a further outbreak of disease here. However, so far as I know, only one death, of a man who had lived in the house adjoining Subhán Singh's, has occurred since my visit of the 19th of April, and I presume that the village was re-inhabited in July.

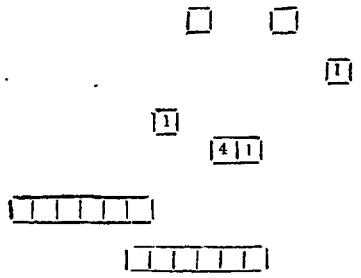
190. I should mention that a snake came out of Subhán Singh's house whilst it was burning, and escaped into the grass. It has been recorded that snakes as well as rats die in a house infected by golá disease. Certainly this snake was alive and very strong.

191. The group of which I now have to write consists of 17 villages, widely scattered in Lower and Upper Dánpur. They were inspected during the months of April and May; the facts of the following histories being recorded at the time of inspection in every case, excepting that of Gaula.

PÁRSÁLI.

192. Párságli is a scattered centre of population, divided into two portions. The portion of which I have to write is called Párságli-wálá, and consists of 18 houses scattered amidst cultivated fields in a cup-like valley surrounded by high mountains,

the habitations being about four miles due east of Kápkot on the Sarju river. Although low down, the houses stand, in terraces or detached, on sloping ground of hill side, something after the following plan :—



193. Seven deaths in all, five women and two men, occurred from golá disease here, and they all occurred in a group of houses near together in the upper part of the village.

The first death occurred on the 1st of April, the last on the 23rd of April. I inspected the village on the 28th of April.

The disease commenced amongst a family of six persons inhabiting two attached houses. The sick were nursed in the houses by their relatives, and of the six, all took the disease and died, excepting one bent old man. In two adjoining detached houses other relatives of the same families, all being Brahmans, helped to nurse or attend the sick, and one person died in each of the detached houses. This community of Brahmans consisted of 12 persons, of whom five remain and are now living in huts, away from their homes, which they dare not enter. They know of no cause for the outbreak. In the two attached and in one of the detached houses dead rats were noticed at the time of the sickness.

The symptoms of those who died were alike, in that they all had continued fever, delirium and coma preceding death, which happened after from three to five days' illness. In three cases swellings appeared in the groin. In the other four fetid diarrhœa was a prominent symptom. All the bodies were buried outside the habited site, near to a temple belonging to the community. No sick person recovered.

194. The two attached houses in which the disease commenced were seen to be very old decaying thatched tenements, said to have been inhabited for three generations, and were certainly unwholesome above and below, for generations of cattle as well as men had been housed in them. The poor old head of the family, knowing the houses were past their usefulness, was building a fine new habitation near when this great calamity overtook the family. He wished me to burn the old houses, and also the infected detached houses, all places of little value. The old houses, and the one detached house in which rats had died, were accordingly burnt, after the owners had been requested to remove any valuables they contained. Only the old man ventured, after much hesitation, to enter his house to save something valuable he had there, which turned out to be a few small, very old cymbals and bells, used at religious ceremonies.

The clothing and coverings of the five remaining persons were burnt, and new clothes and blankets given to them.

No other case of the disease occurred amongst the members of the compromised family, but one death in another family has been reported since my visit.

195. Súngarh is an isolated village situated on the left bank of the Sarju river, not far from its source. But a mountain intervenes between the river and the village, which is reachable only by fording the Sarju, and following a narrow pathway which winds behind the mountain. The village stands in a cup-shaped valley, girt on all sides by great mountains.

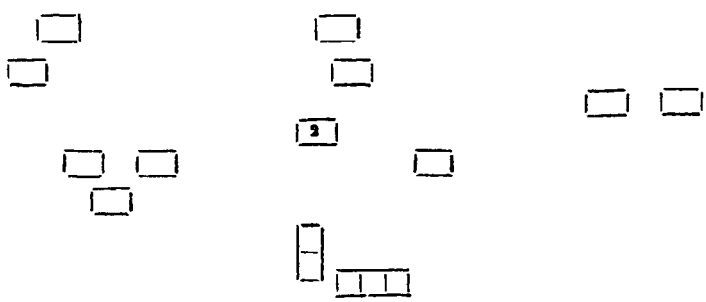
SÚNGARH.

The houses are scattered amidst cultivated fields, especially of barley, which, in the Dánpur country, grows to a size, with a weight of ear, hard to match, I should think, anywhere in the world. And the appearance of this village, amidst its green slope of waving corn framed by great mountains of wildest shape, was remarkably peaceful and secluded. The mountain sides, clothed with trees and bushes, afford ample pasturage for cattle and goats, which are numerous here. But nothing of this jungle comes anywhere near the village. The houses are poorly built of stones piled in earth, the woodwork mostly unshaped branches or trunks of young trees, the roofs a thin thatch of grass. As a rule they are double-storied, but the lower story is a mere den, with a quite small entrance way, its only use the provision of a safe resting place at night for the small hill cattle of these parts or for goats. These animals are so numerous at Súngarh, however, that several separate cow or goat houses have been provided. Wherever these animals had been lodged collections of valuable manure resulted, great around the cow houses, small beneath and around the habitations, which were by no means so filthy from this cause, as many a house of the better built sort in lower Kumaun previously inspected.

The upper rooms in which the people live are partly habitations, partly barns, long and narrow—dingy apartments never cleansed and little swept,—but the air they contain is, by reason of the thin roof, fresher than the air of a stone-roofed house.

The village may be divided into a scattered portion of detached houses of cultivators above, to which the previous description applies, and a cluster of better built attached houses of Brahmans below, after the following plan :—

Súngarh.



196. Only two deaths from golá disease occurred here, of which the following is the local history, recorded on the 29th of April. In a detached house, about the midst of the village site, a boy was taken ill on the 9th of April with symptoms of continued fever. He was nursed by his elder brother, a man of 30, and died on the 12th of April. His body was buried by the brother in a field about 200 paces from the house. On the following day the elder brother was taken ill with like symptoms, and died after four days' illness, a swelling appearing in his groin before he died. His body was drawn out of the house and hastily buried just in front of it by his wife. Then the remaining people of the house, six persons, two men and a boy and two women and a girl, taking food with them, left their home and went far up the mountain side to live in huts, the men separate from the women. At the same time the people of the other houses of the village left their homes to live in hut beyond the village site, but near enough to watch their crops and protect their property. At my inspection all the houses were found silent, empty. With difficulty, and after much delay, the six persons of the infected house presented themselves for examination, and were found all well.

It appeared that golá disease was known and dreaded here, because about 20 years ago four persons of one house had died of it, and the house had been burnt by the people. Rats were said to have died in the infected house as far back as October last, and at intervals since, but no case of disease occurred until the boy was taken ill on the 9th of April. The infected house was seen to be old, the lower room had been

utilized as a cow-house, but neither it nor the surrounding surface was unusually filthy. Two long cow-houses, not shown in the plan, stood near to the house, and they were extremely filthy with manure in large quantity, below, before, and behind. The man's burial place was marked by a small heap of stones. No person of the village would go near the house on any consideration. The haste with which the house had been vacated was shown by the fact that cooking vessels containing food had been left on the fireplace.

197. The house was burnt. The six remaining persons of the family were taken down to the Sarju, their clothing and blankets were burnt, they were directed to wash in the stream, and new clothing and blankets given to them. The men of the party refused to associate with the women, because they had nursed the sick man and one of them had buried him.

A great pile of wood was heaped over the buried place and burnt, much ashes and charcoal resulting.

All rags, rubbish, old coverings, found near the house, were carefully collected together and burnt.

There has been no report of any new case amongst this village population since my visit.

BÁRET.

198. Báret is on the highway which connects the Sarju river near Kapkot with the Rámganga river near Tejam. It is placed on the mountain side, about 200 feet above the roadway. Deaths from golá disease had been reported from this village, and I visited it on the 30th of April. All the houses were found peopled, and the principal men denied any appearance of the disease here, saying that the only death which had occurred since the commencement of the year had been that of a woman who had died in childbirth. The houses were seen to be remarkably clean, and the people seemed cheerful. Such being the local report and conditions, I continued my journey to villages far beyond Báret.

199. A few days afterwards a report reached me to the effect that on the very day of my visit a man was ill of golá disease at Báret and had died that night. The patwári of this part of the country was despatched to enquire into the truth of this report, and finding it true, burnt the house in which the death had occurred. On my return journey from the Munshári country I inspected Báret again on the 29th of May, and recorded the following history :--

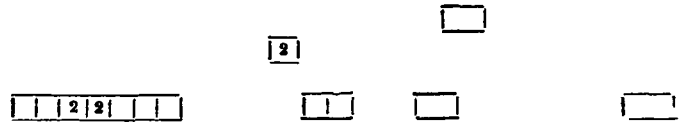
As far back as November last, two persons of the family of a man named Dharam Singh died with symptoms of continued fever. The body of one, Dharam Singh's wife, was burnt as usual ; the body of the other, a child, was buried. Although suspicions were aroused, as no swellings appeared, the presence of golá disease was doubtful, and the people did not vacate their houses. On the 22nd of April the son of Ucha, a Dom, was taken ill, and died in a detached house at the back of the village during the night of the 30th of April. This boy had a swelling in his neck before he died, and the people, sure of the presence of golá disease, vacated their houses. Early in May a half-brother of Dharam Singh, before mentioned, was taken ill and died in a cowshed outside the village, and about the middle of May a half-sister of Dharam Singh was taken ill, but was said to be recovering ; on the 27th of May another son of the Dom Ucha was taken ill, and said to be now sick. All other people well.

I examined the half-sister. It appeared that she belonged to Gadérá village, to be hereafter described, being married to a man there, but had come home to her brother for a time to escape the improper attentions of another man.

She had been taken ill at Báret twelve days ago with symptoms of golá disease, and was now convalescent, but very feeble. She had a quite small glandular enlargement in the groin, which seemed likely to disappear shortly, not being tender or inflamed in any way. Ucha's child was found in an old hut amongst the fields, with the father, mother, and two other children. Its symptoms were as follows: has been ill three days, pulse 120, skin hot, tongue white, countenance fairly cheerful, has a glandular enlargement rising in the left groin.

200. The house in which Ucha's son died had been burnt by the patwári, as before mentioned. The cowshed in which Dharam Singh's half-brother had died was burnt. The half-sister and an old woman who had nursed her were washed, and their clothing and blankets burnt and replaced. Ucha and his healthy children were washed and re-clothed in like manner, and separated from the wife and sick child; a bed of straw was provided in the hut, and the mother encouraged to continue her nursing of the child, for which small doses of quinine were prescribed.

201. The ground-plan of *Baret* is as follows:—



The houses were noticed to be remarkably clean, the lower rooms as well as the upper. The cattle being housed in separate sheds, of which there are at least four in different parts of the village.

202. The sick child of the Ucha family recovered after the bubo had suppurated, and no other case occurred in the family or in the village.

NAUKORI.

203. Naukori is a small village consisting of only five or six well built houses, situated two miles east of Báret, on the same highway, and, like Báret, it stands about 200 feet above the road on the hill side. The houses are placed after the following plan:—

Naukori.

204. I inspected this village on the 1st of May, and recorded the following history of golá disease:—Seven cases and seven deaths occurred, all in the family of Deb Singh, who inhabited one of two attached houses. The first person taken ill was Deb Singh's son, who was nursed and died in the house, in November. The symptoms were those of continued fever, pain in the head, delirium, insensibility, and death. Immediately after he died the family vacated the house to live in a temporary hut constructed for the purpose far from the house. During December, Deb Singh's brother, a second son, and a third son of Deb Singh died in the hut of disease characterized by the same symptoms; all these four persons were buried, and after the third son died the remaining members of the family vacated the hut to live in a cow-house about 50 yards from the house. During the first 12 days of January a fourth son of Deb Singh, Deb Singh's wife, and Deb Singh's daughter died of the same disease in the cow-house, and of the whole family only Deb Singh and his mother remained. They fled away in separate directions, leaving at least one dead body in the cow-house, unburied. This being reported, the patwári was directed to burn the house in which the body lay. The burning was effected by the old mother, who set fire to the cow-house,

as directed by the patwári, standing on the road below. All these seven persons died after from two to three days' illness; no bubo was seen in any cases. The last death occurred on the 12th of January, and there has been no case of disease here since. Deb Singh and his mother were found well, and inhabiting the old house. No dead rats had been seen in the house, the upper room of which was divided from the adjoining house only by a thin partition of unjoined slabs, with many openings between the slabs. In the adjoining house seven persons lived; they fled immediately after the first child died, and are all well now.

205. Deb Singh's house was found remarkably clean, having been thoroughly cleansed before he returned to it, but before and at the time of the disease it was probably filthy below, as four cows had been lodged in the lower room for a long time. All the cattle are now lodged in separate cow-houses, and all the houses of the village appear well kept and very clean, both below and around.

The site about the houses is clear cultivated land, with grazing land of rather dense jungle beyond, and nowhere upon the land could any condition likely to be a cause of contagious fever disease be noticed. Nothing could be learnt as to the cause of the outbreak from Deb Singh. The first child who died had never left his home since he was born.

SÁMÁ.

206. A village about three miles east of Naukori, on the same highway. Inspected on the 1st of May. Only two persons had died of golá disease here, a man's wife and his granddaughter, said to have belonged to a party of Gwalás grazing cattle, and living outside the cultivated area in a temporary shed. These deaths occurred as far back as October last, and there had been no case since.

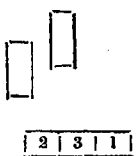
At my suggestion the people burnt the temporary shed in which the deaths had occurred.

BANDHÁR.

207. A village of scattered houses, situated about three miles south-east of Sámá, from which it is reached only by a footpath winding over a high mountain. Bandhár with its lands occupies a high placed valley, from which the Mergari stream, a branch of the Rámganga river, arises. A more secluded place, or wilder, it would be hard to find in all the hills. Dense jungles clothe the hills there on all sides, and nature has possession of all the site, excepting in the immediate neighbourhood of the scattered homesteads which make up Bandhár, the people of which have brought into cultivation patches of excellent land bearing fine crops of wheat and barley.

208. Golá disease prevailed here in two widely separate homesteads or hamlets, an upper and a lower, and the history of the outbreak is instructive. The prevalence commenced in the lower hamlet, which consisted of one long house of three rooms and two smaller detached houses, thus—

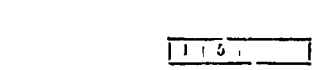
Lower hamlet.



In all, six persons belonging to this hamlet died, the deaths occurring on the following dates: 18th January, 28th January, 14th February, 19th February, 26th February, 4th March. All were closely related, as follows:—A mother, her three sons, her daughter-in-law, her grandchild. The symptoms of the disease from which these persons died were—continued fever, delirium, insensibility, and death after from two

to four days' illness. In some cases swellings appeared in the armpit, groin, or neck. The first two cases died in the house, then some of the members of the family left the house and took up their abode in a house they possessed in the upper hamlet, the houses of which were thus placed—

Upper hamlet.



The first death occurred here on the 4th of February in the house to which the people from the lower hamlet had come. The second death occurred on the 2nd of March in the same house. Then followed in succession 7 deaths on the following dates: 3rd March, 4th March, 4th March, 4th March, 8th March, 10th March, 20th March. Of these nine persons six were related to the people of the lower hamlet, and three who died in a detached house comprised the family of a Brahman, who, when the other people of the hamlet fled to the hill side early in March, elected to remain in his house to nurse his wife, who had taken the disease. First the wife died, then her child, and lastly the Brahman. This brave man buried his wife and child, and a few days afterwards was taken ill himself and died alone in his house. There his body remained until the 15th April, when, the fact being reported at headquarters, the patwári burnt the house and body together. The people were earnest in their praise of this Brahman's conduct, describing how he faithfully nursed his wife and child, and then determined to remain in charge of the hamlet, shouting every day to the people on the hill side that he was all right, until one morning he shouted that he was ill, passed into his house, and never re-appeared.

Those who died in the upper hamlet suffered with the same symptoms as those who died in the lower, and bubo was a prominent symptom of the disease in both hamlets. All the people who were taken ill died, and there had been no death since the 20th of March, all the survivors of both hamlets having lived in huts on the hill side since the beginning of March.

209. I inspected the village on the 2nd of May. The houses were seen to be the counterpart of those described in para. 193,—old houses of three generations, and the lower rooms utilized as cattle-sheds with the usual result. Much of excessive vegetation neighboured these homesteads. The site generally, especially by reason of the unusual rainfall of April in this year, presenting an appearance of conditions very likely to engender malarial fever disease in the inhabitants, but of nothing likely to be a cause of contagious fever.

Any local cause, for the latter form of disease, could be found only in and immediately around the habitations. In the course of my enquiries it was mentioned here that throughout the Dánpur country it is an established custom to moisten the heads of the madhua grain with water while treading them out, and to store the resulting moist grain in considerable quantities in baskets around the family sleeping apartment. The houses of the infected hamlets were uninhabited, and within the walls of the house which had been burnt the partially consumed remains of a man remained a cause of unpleasantness. These remains were consumed to ashes by means of the remaining charred wood of the house piled over them and burnt.

The infected houses, both of the upper and lower hamlet, were burnt with the permission and assistance of the owners. Six persons, remaining of the families in which the deaths had occurred, were re-clothed and their old clothes and coverings burnt. Nothing was known here of the death of rats before or during the outbreak of disease. No cause for it could be assigned by the residents: all they seemed to know of this time of terror was that the disease had come, and the survivors had fled their homes, abandoning their property and cherished crops, heavy with grain then, but now sadly injured by the feasting of monkeys and apes, a numerous race in the surrounding woods to which the people fled.

No case of disease has been reported from this village since the date of my visit

GAULA.

210. Gaula is a village situated high up the Rámganga valley, near to the principal source of that river. The following history of golá disease there was received from the local patwári.

211. The prevalence commenced in August last, when three children belonging to one house died, and by orders of the patwári the people vacated their homes. During August, September, and part of October seven other persons died, and all the ten persons who died were related and had lived in daily intercourse. The people of the village burnt the infected house, and no case of disease had occurred since October. In April all the survivors had returned to their houses, and in May all were well.

BHAMANGAON.

212. A village on the Jankula stream, one of the sources of the Rámganga. Inspected on the 4th of May. Only two persons had suffered from golá disease here, and both died. They were cowherds employed, at the beginning of January, in tending cattle on the grazing lands of the forest, far away from the village site, northwards. They lived in a hut in the forest, and early in January one man was attacked with disease, and attended by his companion, until death ensued on the 4th day of the disease. A day or two afterwards the companion was taken ill, and was brought, or returned, to the village and placed in a temporary hut below the village site, which is high placed on the mountain side. He died in this hut on the 5th day of his disease, and before he died a boil-like swelling appeared in his back over the spine. The body was buried, and the hut burnt. There has been no case since. Five remaining persons of the same family were seen, all well, living in their house as usual.

All the houses here have been recently cleansed and clay-washed with great care. Cattle, formerly housed in the lower rooms, are now housed in newly built cowsheds of permanent appearance.

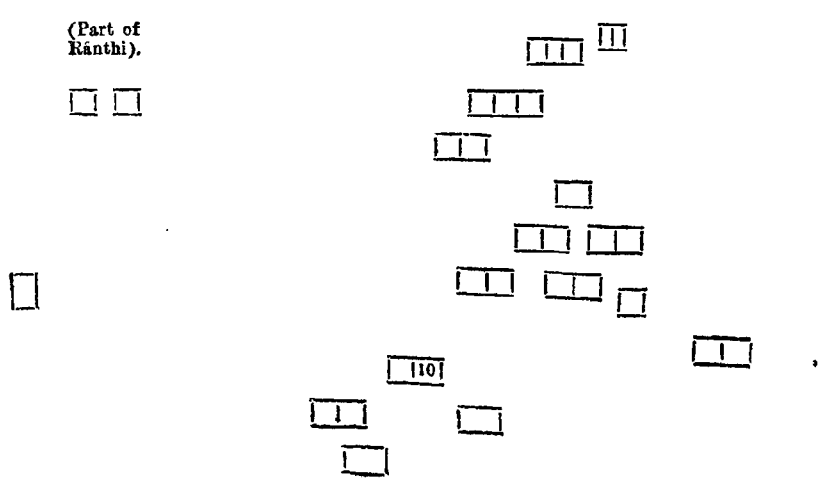
DOR.

213. A large village, higher placed in the Jankula valley than Bhamangaon, and neighboured to the south-west by another large village, Ránthi, which stands much higher on the mountain side than Dor.

It had been reported at headquarters that golá disease had recently prevailed in both Dor and Ránthi.

I inspected these villages on the 4th of May. Dor is a village of many houses, spread over or down a rather rounded spur of the mountain thus, roughly:—

Dor.



214. The history of "golá" prevalence was locally recorded as follows :—

The village of Dor may be divided into an upper portion of cultivators and more respectable people, and a lower portion quite separate of Doms, or low caste people, living in five or six houses placed wide apart. About the middle of March one of the residents of the highest placed house of this Dom community was taken ill, was nursed, and died in the house after three or four days' illness. Of the ten persons who inhabited the house all were taken ill, and died, during the period included between the middle of March and the 26th of April, and now only two of the family, who were absent from home on service, remain.

No persons now living can say they saw buboes or swellings on those who died, but those who last died had stated that swellings appeared in the groins and armpits of those who first died, and consequently all the people fled from the village.

Of those who died, two fled from the infected house to a detached house standing on Ranthi land, but far away from Ranthi village, and died in that house ; and three fled to two sheds in a Ranthi field, still further from the village, and died in the sheds.

There had been no case of disease since the 26th of April, when the last man died in the Ranthi sheds. All the inhabitants of Dor were on the hill side in huts, and all well. The inhabitants of Ranthi were at home as usual.

215. The infected house was found to be an old, roughly built, thatched, double tenement, placed on a solitary ledge. The site generally filthy from manure, and overgrown with excessive vegetation. The lower rooms had been long used as cattle or goat pens, the upper had apparently never been cleansed or washed since the house was built, and were infested with hungry fleas in such extraordinary numbers that a few minutes' stay on the premises necessitated an immediate resort to a neighbouring stream, there to await the arrival of a change of clothing.

The two native officials who assisted at this inspection were attacked in like manner, and a few minutes after the house had been hastily fired all three persons were immersed in the pool below it.

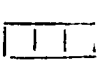
The remains of those who had last died in the Ranthi sheds were found, two partially buried in the floor, and one lying on the floor in a decomposed state. Wood was heaped over those remains, and they were thoroughly consumed, together with the sheds. All clothing, coverings, rags, and rubbish found on the site were cast into the fire. The bodies of the two persons who had died in the detached Ranthi house had either been buried or carried away by wild animals. No one could say what had become of them, but they were not in the house, which had been abandoned by its owner, and was burnt out.

216. The people of Dor remained on the hill side until June, all well. It is presumed that they returned to their homes before the rains commenced. No death from golá disease has been reported from Dor or Ranthi since the date of my visit.

CHACHAINA.

217. Chachaina is a hamlet of Dor, consisting of five houses, about a mile from it northwards. The houses are placed as below :—

Chachaina.



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218. The history of golá disease here is thus recorded :—On the 24th of April a boy was taken ill with symptoms of continued fever, and died on the 26th of April. He was nursed principally by his aunt and mother. The aunt died on the 30th of April, and the mother was believed to be ill or dead on the day of my inspection, the 6th of May. But she had left the house while ill, and nobody knew where she had

gone to. With considerable difficulty her hiding place was found, being a shallow cave in the mountain side far below the house. There she had died, probably on the evening of the 5th May, alone, and her body had been drawn a little way out of the cave by wild animals who had torn the arm and leg. A prominent swelling in the groin testified to the cause of death. Straw and wood were heaped over the body in great quantity, and it was thoroughly consumed. All clothing and coverings in the cave were burnt, and the cave itself burnt out with much straw and grass. The infected house, said to be three generations old, was burnt down.

Three persons of the family remained—a girl and two men. They were found with difficulty, but would on no account approach the dead body, or help to burn it. One of the men stated that he was the son of the dead woman, and had been employed as cowherd to the Dom family at Dor, which had nearly died out of golá disease, and that he had brought grain (received as wages) from the Dom house to his own house.

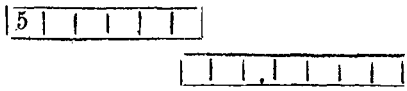
The three survivors were taken down to the stream, washed, and re-clothed; their old clothing and blankets being burnt. They then took up their abode in a cave or hut far distant from that in which the mother had died. On the 7th of May the girl was taken ill, and died on the 11th. On the 16th of May the younger of the two men was taken ill, suffered from golá disease, and recovered. I saw him on the 27th of May on my return journey from Munshári.

He stated that his little sister had attended the mother who died in the cave, the men fearing to do it. That his cousin, the other man, ran away when the girl was attacked with disease, and he remained to nurse his sister, who died after four days' illness. He buried the body, and remained alone in a hut under a great rock for five days, when he was taken ill with shivering, followed by fever, which quickly produced insensibility. He recovered his senses, and was able to eat and drink on the 20th of May, when a swelling rose in his groin. He now, the 27th of May, presents an appearance of extreme debility; is emaciated, and has a suppurating bubo in the groin, and two suppurating boils on the buttocks. But he is on the road to recovery. The hut in which his sister died, and he lay ill, was burnt; his clothes and blanket were burnt and replaced, and a new hut provided for him. He perfectly recovered, and no other case has occurred at Chachaina. Nothing is known of the subsequent history of the cousin who ran away.

BIRTANG.

219. Birtang is a hamlet of about thirteen houses, situated near the head of the Jankula valley, close to one of the sources of that river, a picturesque waterfall. Birtang stands near the foot of the waterfall. I inspected it on the 7th of May.

The houses form two terraces, thus :—



220. Five deaths in the family of Inayat Singh occurred here from golá disease, of which the following is the history. The first case, that of a boy of 11, ended fatally on the 11th of December last; next a brother aged 15 died, then a third brother aged seven. These all died in the house. An uncle left the house to work at the new Tejam bridge (distant 8 miles) after the first boy died; the uncle was taken ill and died at the Tejam works. And lastly a fourth brother, aged 2, died on the 29th of December in a hut. I should mention here that soon after the uncle died at Tejam bridge, two other workmen there were taken ill and died. All the remaining work-people then fled, and the construction of the bridge was arrested for a time. No disease occurred amongst the people who fled, and they were at work, all well, in April. Of the four sons of Inayat Singh who died, one had a boil on the ear, one a bubo in the armpit, and two had vomiting and diarrhœa. All had symptoms of continued fever, delirium, and insensibility preceding death, which occurred after three

or four days' illness. Only the father and mother of the family remain, disconsolate, but well. They nursed their children tenderly, but have had, so far as they know, no symptom of the disease.

They returned to their house from a hut in the jungle in April, and since their return Inayat Singh has been employed in dismantling his house, intending to use the wood to build a small new house; the two old people not requiring a large house, now all their children are dead. The hut in which the last child died has been burnt. With the exception of the Inayat Singh family, no people left their homes here, and all have remained well.

221. The houses were noticed to be particularly filthy, and specially the lower room of the partially dismantled house; though all were pretty much alike in respect to filthiness, the result of housing cattle in the lower rooms. No other probable cause for the appearance of contagious fever disease could be noticed. The people, and especially the children, were filthy in their persons, but the weather had been remarkably cold and damp for some time past, and that may not be a permanent condition. At any rate, when asked to do it, they washed themselves in the stream, and came out much improved in appearance. Measures were taken to ensure the thorough cleansing of the village, and the floor of Inayat Singh's house was opened out to admit sun and air to the lower rooms.

DÁRKOT.

222. Dárkot is a village of 116 fine stone-built houses with slate roofs, situated in the upper part of the Gori valley, and close to the river of that name. It is the winter place of residence of many families of Bhuteas, who in the summer months go up to Milam, where they also have houses to reside in, the heads of families and men crossing the Uttá Dhurá pass to trade with the people of Hundés. These Bhuteas are a strong, self-reliant, independent people, their broad-faced children bright looking, with red-brown cheeks.

Here, in November last, three persons of one family, Doms, residing in two adjoining thatched sheds outside the village proper, died of golá disease. First a man died about the 10th of November, then after eight days his mother died, both in one shed. Then the remaining members of the family fled away from their home, and one woman, the mother's daughter-in-law, died in the jungle far from Dárkot at a place called Ayar Pani, about half-way between Dárkot and Birtang. She died 12 days after the mother, on or about the 30th of November. The first man's body was burnt as usual, as no appearance of golá was seen on his body. Swellings appeared on the mother's body, and it was buried. Nothing is known about the daughter-in-law, or what became of her body. It is probable that she was abandoned while sick, and her body eaten by wild animals.

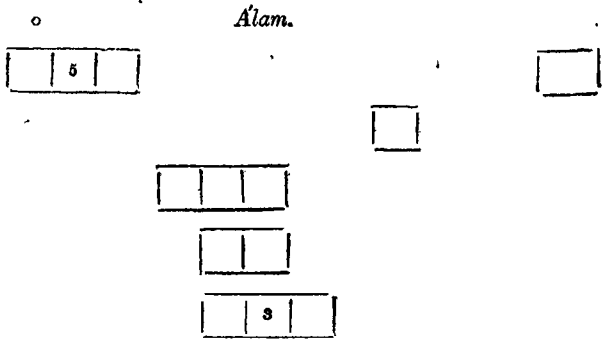
223. The six remaining persons of the family were seen, all well. They had returned to the village, but would not live in their former sheds or even approach them. These sheds were seen to be old, filthy, altogether disreputable tenements. With the consent of the owner and the headman of the village the sheds were burnt.

The well-built houses of Dárkot proper were seen to be well kept in all respects. In some places wild hemp was growing amidst the houses, but the people were clearing it away. And altogether my recollection of Dárkot is that of a cheerful place: of the population, a healthy-looking, well-dressed people, who turned out in great numbers to witness the burning of the infected sheds.

ÁLAM.

224. Álam is a village of about 12 houses, high placed on the precipitous mountain side above the Gori river. To reach it from the Gori valley side, the river, a boiling flood of snow water, has to be crossed by means of a cradle sliding on a rope, the apparatus being temporarily provided for the use of the visitor.

The houses are placed on the mountain side, from above to below, in the following order and position :—



225. I inspected Álam on the 12th of May. In all, eight deaths in two families occurred here from gola disease; the following being the history of the outbreak :—

The disease commenced in the padhán's family with the illness of the padhán's brother, who came home ill with fever from a shooting excursion on the 4th of March, and died on the 7th, a swelling appearing in his groin before he died. In this family the wife of another brother and her child died during the period between the 7th and 23rd of March, and in both cases bubo appeared as a symptom.

While the man who first died lay sick, he was visited several times by a man who had recently come from Askot to settle with his family in three attached houses, highest placed of any in the village. This Askot man was taken ill on the 11th and died on the 16th of March, a swelling appearing in his armpit before he died. He died in his house attended by his wife, who buried his body just outside the house door. Three days after he died his wife was taken ill, and died after four days' illness, and her body was left in the house unburied. The five remaining members of the family—four boys and one girl—fleeing to a neighbouring hut, where they lived together for a few days, the eldest, a boy of 14, acting as head of the family, and providing food for the rest. This boy, feeling himself ill, returned into the house alone and died, his body also remaining in the house. Four children remained, the eldest, a girl of nine named Dánúli, and her three brothers aged respectively 7, 5, and 1½ years. Dánúli worked for and fed them all for a few days, and during this period the boy of 7, wishing to take honey from a hive in the house, entered it with burning straw or wood to drive the bees away. Either from carelessness, or as the result of fright at seeing the dead bodies, he set the house on fire, and all three tenements were burnt down. A few days after the house was burnt down the boy of seven was taken ill and died in the hut, and his death was followed by that of the boy of 1½, after an interval of some days. So that Dánúli and one brother only were left.

226. Before reaching the village on the 12th of May I had been informed that possibly children might be found there abandoned. The village was found empty and desolate, and Dánúli and her brother were found near their place of temporary abode outside the village; the former, a brighteyed little girl dressed in an old petticoat, the latter a little urchin wrapped in a piece of old blanket, both fat and well. These children had lost their parents by the 20th of March, and from that date had been thrown on their own resources, excepting for a few days while the elder brother lived, for no person of the village would approach them.

The girl Dánúli recounted, in disjointed sentences, her experiences of the past eight weeks. Explained how her father, mother, and big brother had died; how all the people ran away out of sight; how the house had been burnt; how her brother of seven had died and his body been carried away by jackals in the night time; how she had buried her little brother of 1½, taking the body in a basket and digging a trench for it with a pick; and lastly, how she had been left only with the

remaining brother—husking and cooking rice for both every day, leading her brother down to a stream to drink, and sleeping with her arms about him every night. Even now that so long a period had elapsed since the last person had died, no native person present would approach these children, who sat hand-in-hand, apart, as the girl told her pathetic tale of suffering and endurance. Being praised for her conduct, she cried, was not comforted by a promise of sweetmeats, but would be thankful if her remaining store of paddy in a basket in the hut was not taken away or destroyed.

The few native persons present were earnest in their praises of this child, saying she had certainly saved her brother's life. To me she seemed to be about the most wonderful little person, fair or dark, that I have ever seen or am ever likely to see.

227. All of the clothing, rags, rubbish, and human remains found in and about the burnt houses were carefully collected and consumed. The hut in which the children had died, and the padhan's house in which the first deaths occurred, were burnt with his consent. A great pile of fuel was heaped over the Askot man's grave and consumed to charcoal, which was spread over the burial place.

The two children were taken down the mountain side to a stream in which they were washed, their clothing was burnt, and they were re-clothed and provided with blankets. Afterwards they were passed in the cradle across the Gori, and given in charge of their grandfather, who was much moved at sight of the children, and promised to care for them in his village on the mountain opposite Álam.

Two widows of the first man who died were re-clothed, and their clothing and blankets burnt, as they had nursed those who died of the padhan's family.

There has been no new case of disease amongst the people of this village since my inspection.

BOTHI.

228. Bothi is a hamlet of a few scattered houses widely separate, situated in the upper part of a wide valley which slopes towards the Gori river opposite Jalath.

I inspected this village on the 14th of May. It is much isolated, and although only about two miles in direct distance from Jalath, can be reached from it only by a circuitous march of ten miles, by reason of the intervening Gori river.

229. Golá disease commenced here with the illness of a son of one Tejua, who lived with his family in a lonely house built on a separate ledge. This son, aged 12 years, suffered from fever, and died on the 20th of February after five days' illness, a bubo appearing in his groin before he died. While he was ill his sister, aged 4 years, was attacked with the same disease, and died after four days' illness. These two children died in the house, and after their death the remaining members of the family, father, mother, and daughter aged 15 years, fled the house to take up their abode in a hut, about a mile south of the house, near the pathway leading to Madkot. In the hut the daughter, mother, and father all died in the order indicated, the last dying on the 20th of March. His body remained in the hut for a little while, but was eventually pushed into a hole with a pole by a Búthia man who is alive and well.

230. The infected house was seen to be a poorly built place of piled stone, unshaped wood, and grass roof; said to have been built 20 years. Excessive vegetation, especially of hemp, encircled the house, which, with its ledge, was shaded everywhere by cherry, apricot, and plantain trees. Before the time of this last great trouble of death, it had been, I dare say, a pleasant homestead in the opinion of the residents, but the filthiness of the lower rooms, where the cattle had lived, ruined the sanitary aspect of the place. The upper room, were dirty from the neglect of years. The sole occupant was a little dog, very near to death from starvation and a wounded leg. It had belonged to the people of the house, and when they died the people of other houseswould give it neither food nor asylum, but drove it away with violence.

The dog was removed in a basket and recovered, and the house was burnt down,

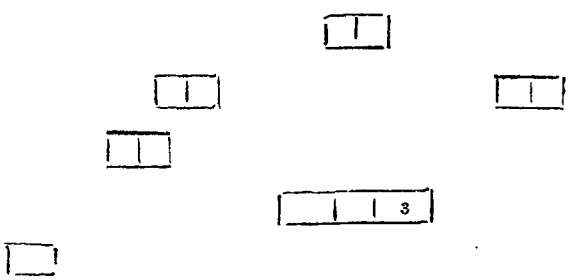
231. The hut in which the last three members of the family died was burnt. Their bodies were seen to have been hastily interred by pushing them into a pit-like depression, which had been the lower room of a long-abandoned house; some earth and stones had been heaped on the bodies. The pit was filled with fuel, which was burnt to charcoal, and so left. All the clothes, coverings, tools, wooden vessels, and other belongings of the deceased persons, nothing of which had been touched since their death, were thrown into the burning pit and consumed. Yet there was one exception to this dread of touching anything belonging to the deceased family, for it appeared that the Bhutia man, who had pushed the last dead body into the pit, at the same time buried together all the brass and copper cooking vessels of the family for purification in the earth and subsequent use. They were left undisturbed.

There has been no other case of the disease at Bothi.

BASANTKOT.

232. Basantkot is situated in the same sloping valley as Bothi, but considerably lower down. It is a village containing several houses, placed pretty near together after the following plan:—

Basantkot.



The houses resemble those of Bothi as regards construction, being poorly built, the lower rooms utilized as cow-houses, and consequently filthy.

233. I inspected this village on the 14th of May, and recorded the following history of "golá" prevalence there:—

The disease prevailed only in a Brahman family residing in one house of a terrace of three tenements. The head of the family, Sibua by name, attended at the house of Tejua in Bothi to perform the funeral rites of the boy who first died there on the 20th of February, and on returning home he is said to have brought ghi with him from Tejua's house. Sibua's wife ate some of the ghi, and rubbed some on her daughter's hair. On the 28th of February the daughter was taken ill, and died on the 2nd of March, and the mother was soon after attacked and died on the 7th of March; they both suffered from symptoms of continued fever, but no swellings appeared Both died in the house, and were buried in a field below the house, and then all the people of the village vacated their houses to live in huts in the jungle. The mother's sister-in-law, a girl of 15, waited on her during her illness, and soon after the removal this girl was taken ill in their hut, became insensible on the third day, and was believed to be dying. She was placed in a separate hut, and Sibua gave her water. On the fourth day a glandular enlargement appeared in her armpit, and she recovered her senses and took food. On the eighth day she was able to walk, and completely recovered. The glandular enlargement disappeared without breaking.

234. There has been no case since, and the people have returned to their homes, excepting the Sibua family, who have made arrangements for burning their house, by removing the wood-work of the adjoining tenement.

The Sibua house was seen to be a remarkably filthy tenement, said to be two generations old. It was burnt. Six persons of the family remained—the girl who had

been ill amongst them, debilitated, but otherwise well. Their clothing and blankets were burnt, and new clothes and blankets given to them. These persons had all eaten grain taken from their house for at least 30 days after they vacated it, but none had been ill. There has been no case of golá disease at Basantkot since my inspection.

KASIABARA.

235. Kasiabara is a hamlet of four or five houses in Munshári, a little to the east of and below Jalath.

I inspected this hamlet on the 15th of May. It appeared that a girl of 14 had died after 3 days' illness at the beginning of March in one of the houses. No bubo appeared in her case. Fourteen days after her death, her brother, change aged 8 years, died after five days' illness. No bubo appeared, but the people became frightened and vacated their houses for huts on the hill side, when the boy had died. Both bodies were buried, and there had been no case of disease since. The house in which the deaths had occurred was seen to be well built and very clean, having been lately carefully cleansed and washed with clay water inside and out.

All the residents had returned to their houses in good health and spirits, the general opinion being that the deaths had not happened from golá disease. Cattle had formerly been kept in the lower rooms of the house, but were in future to be lodged in separate houses. The house was well fumigated with wood smoke, as a further precautionary measure.

There has been no case of golá disease here since the date of my inspection.

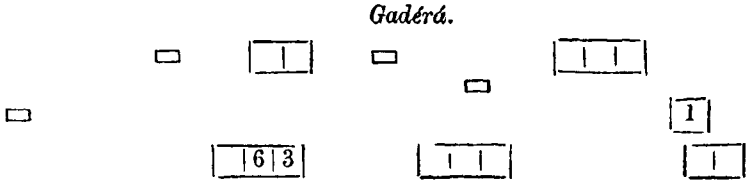
GADÉRÁ.

236. Gadérá is a remarkably secluded village reached by a dubious pathway, winding up a wooded glen which starts from the Sarju river nearly opposite Kapkot. At its upper portion the glen opens out into culturable land which forms the Gadérá site.

The village stands well up on the mountain side, which, with gradual slope, forms a basin-like termination to the glen. To one side of the village a considerable amount of moisture oozes from the mountain side, which there has been shaped into valuable terrace rice-fields. The remainder of the site is cultivated with wheat and barley in season, is dotted here and there with trees, and presents nothing of unwholesome appearance.

The houses stand, from above to below on the hill side, after the following plan :—

Gadérá.



237. I inspected the village on the 30th of May, on my return journey from the Gori valley.

In all, ten persons have died here of golá disease, and the following is the history of the outbreak:—On the 12th of May, Gujhia, the village Padhan's brother, a man of 25, was taken ill with symptoms of fever, and died after three days' illness. No swelling appeared in this case, and the body was burnt at the Sarju river. On the 15th of May Gujhia's daughter, two years old, was taken ill, and died in three days, a swelling appearing in her neck. Her body was buried, and all the residents fled from the village to live in huts on the hill side. Between the 19th and 29th of May the Padhan's wife, a child of the Padhan's nephew, and the wife of the above-mentioned Gujhia died. The last died on the 29th of May, and her body had been left unburied on the hill side. It was found in the shade of a large rock, water food placed near to it, and was burnt with wood where it lay.

Two infected houses were burnt, one being a very old, ruinous, filthy tenement; the other the Padhan's house, one of three attached houses. The residents desired that all three of these houses should be burnt, as they had all been inhabited by the Padhan's family, but it was thought sufficient to burn only the house in which those who had died habitually resided. At the time of my inspection the Padhan was noticed to be looking ill. A dose of quinine was administered to him. The clothing and blankets of the Padhan's family, ten persons in all remaining, were burnt, and new clothing and covering supplied. One old woman of the family had nursed Gujhia's wife on the hill side until she died, and for that reason was carefully avoided by all the rest. Of these ten persons, five died during the first fifteen days of June in the following order :—

The Padhan ; the old woman ; the Padhan's daughter ; the Padhan's son, a child ; and the Padhan's eldest son's wife. The remaining five escaped the disease, and were all well at the end of August. The disease was confined entirely to the Padhan's family as described. All suffered with the same symptoms, and glandular enlargements appeared in some of those who died.

No reason for the outbreak could be assigned by the residents. The man Gujhia had not been outside the village boundaries for many days before he was attacked. That they were, however, in communication with Baret, an infected village, is sufficiently shown by the facts disclosed in the Baret history, para. 197.

SUMMARY.

238. The preceding histories of prevalence in the 40 villages affected provide, I think, an evidence sufficient to place beyond doubt the nature and character of the disease under consideration. Certainly it will suffice to determine the question as to whether it is typhus fever or plague.

239. The definition of typhus fever in Dr. Aitken's "Science and Practice of Medicine" is as follows :—

"A continued fever, followed and accompanied by a rubeoloid eruption on the skin, generally appearing from the fifth to the eighth day. Languor, prominent from the commencement, gradually passes into complete prostration and sometimes coma. The disease may terminate favourably from the 13th to the 17th day. If the disease proves fatal, it is generally between the 12th and 20th day."

The definition of plague is :—

"A malignant fever, which has prevailed at different times and places epidemically, attended with an eruption of a complex nature, composed of buboes or swellings of the lymphatic glands, carbuncles, pustules, spots, and petechiæ of various colours and distributed in different parts of the body." And in the history which succeeds the definition it is stated that the symptoms noticed in plague have been shivering and fever, followed, on the first, second, or third day, by swellings of the parotid, axillary, or inguinal glands. Further, that sometimes, the poison of plague produces such disordered functions of the great nervous centres as to destroy the patient within two days. And in the most destructive forms of the plague the vital principle seems to be enfeebled to a degree capable only for a short time of resisting the violence of the disease ; but the form of plague, beyond all others most destructive, is that which exists without its characteristic eruption of external marks considered pestilential. These cases perish sometimes within 24 hours.

The general course of the disease is thus described—attack preceded by a feeling of uneasiness and anxiety, followed by shivering, headache, and vomiting, then appear the characteristic buboes, carbuncles and petechiæ, preceded or followed by delirium or coma, too often terminating in death.

240. The symptoms and character of the disease under consideration coincide very exactly with the description thus provided of plague, with the exception that the

appearance of petechiæ (purple spots) on the skin has not been noticed in the Kumaun form of the disease. No appearance of that nature could be seen on the skin of the sick persons examined, and no evidence of such appearance in any case could be obtained. It is likely that this absence of visible petechiæ may be due to the fact that the people affected were all dark-skinned.

But this absence of one comparatively unimportant symptom can have little weight as against the overwhelming evidence of the histories, favouring the opinion that the disease is plague, perhaps modified, in some respects, from the plague of Egypt and the Levant, by reason of difference of climate and race, but essentially the same disease, and distinguishable only under that name.

241. When first brought into contact with the disease I was inclined to think, as Dr. Rennie had done, that it was a form of rapidly fatal typhus, more especially as the characteristic buboes of plague had not, as described to me, been observed in the cases first brought under my notice at Bált and Bintola. A further acquaintance with the disease, its symptoms, and peculiarities, soon convinced me that it was identical with the disease *Pestis* of medical writers, and nameable in English only as *plague*.

242. The symptoms of this Kumaun *plague*, and the course of the disease, as learnt at this investigation, are as follows :—The attack is preceded by an unmistakable appearance of lassitude and anxiety; this condition was marked in the mother mentioned in para. 121, and in the Padhan mentioned in para. 237. Usually the first symptom of actual disease is shivering, followed by intense fever. The symptoms of fever, rapid pulse and hot skin, continuing after about 12 hours pain in the head will have become a prominent symptom. The head will be hot, the brain evidently congested. The pain continuing, by the evening of the second day the sufferer will be delirious. The delirium may be passive, the patient complaining of imaginary noises which disturb him; for example, he may frequently complain of some person chopping wood or grinding corn near the house, when all is silent there; or it may be active, the patient starting up and running out of the house, as in the case of the mother mentioned in para. 216, who was said to have run away in her delirium. By the evening of the third day the patient will be insensible, and will die during that night.

This is the course of the disease in by far the greatest number of cases, and in these frequent cases of death on the third day no characteristic appearance of plague disease will be found on the body after death.

243. But there are two well-marked exceptions to this general course of the disease.

First, the case in which the vital principle is overpowered at once by the violence of the disease, and in which the patient will die within 24 hours of first attack, as in the case of the man described in para. 116, and of the mother in para. 121.

Second, the case in which, after the delirium or insensibility has continued for some hours, glandular enlargements appear either in the groin, armpit, or neck. These may appear as early as the fourth day, as in the case of the girl mentioned in para. 122, and the case of the brother in para. 218, and this is the usual course; or they may not be prominently apparent until as late as the 17th day, as mentioned in para. 125. In this last mentioned case I have reason to think that the bubo in the groin had commenced to form before the 17th day, although its presence was denied until that day. And the balance of evidence is greatly in favour of the opinion that the appearance of these glandular enlargements marks a favourable crisis in the disease. Besides these critical glandular swellings, other boil or carbuncle-like swellings, not glandular, may appear, as in the case of the old woman mentioned in para. 122, the case of Khemuli in para. 124, the case of the companion in para. 212, the case of the brother in para. 218; and with the appearance of these glandular and other critical swellings a faint hope of recovery may be entertained. The ultimate favourable result appearing to depend greatly upon the favourable progress of the swellings towards

suppuration, and the discharge of matter from them. For many cases end unfavourably on the 4th, 5th, and 6th days, after the swellings have commenced to appear, but of 14 cases of recovery which came under my notice, in 10 the recovery was not perfected until after the critical swellings had suppurated and discharged their contents. This certainly advantageous result of suppuration not being, however, absolutely essential to recovery, as shown in the case of the half-sister mentioned in para 199, and the case of the girl mentioned in para. 233.

244. The dangerous character of the disease and its extreme fatality are forcibly shown by the results recorded in the histories of the 40 villages affected in this latest period of prevalence during 1876-77. In these 40 villages the total number of cases which occurred was 291, and of these 291 persons, 14 recovered and 277 died. That is to say, that of every 100 cases, 95 terminated in death—an untoward result, sufficient of itself to stamp the disease as something more urgent than that known as typhus fever.

245. The history of this *plague* of Garhwál and Kumaun, as yet recorded, shows it to be the result of endemic influence, arising from conditions or agencies peculiar to a locality. The specific poison of the disease has doubtless been constantly extant somewhere in the world for many generations past, and very probably extant for many generations past in Garhwál and Kumaun. The previously recorded account of its supposed commencement at Kidarnath in 1823 can be of value only as an expression of opinion, recounting the belief of the existing generation, amongst a people who have no records or knowledge of previous generations. The fact that the people everywhere in Kumaun and Garhwál have a specific name for the disease, calling it "*Gola*" or "*Phutkia*," both words meaning *Bubo*, not only adds strength to the belief that the disease must be plague, but favours the probability that the disease was known to previous generations. The term mahámari (pestilence) was not understood by the country people as applied to this disease especially, cholera also being called mahámari.

246. Nothing as yet recorded tends to show that the disease has ever been epidemic, that is, tending to spread rapidly, so as to destroy great numbers of the people. During the prevalence of 1834-35 a total of 633 deaths were recorded as having happened in villages widely separated in Garhwál, the greatest number of deaths in one village having been 47. During the prevalence of 1849-50 a total of 113 deaths were recorded in nine villages.

During the prevalence in 1851-52, I find by a statement in Dr. Pearson's journal that 567 deaths were recorded in 77 villages.

During the prevalence in 1860 about 1,000 persons are said to have died of the disease, but there is nothing on record showing the number of villages affected.

During the prevalence of 1876-77, which forms the subject of this report, 41 villages in all were affected in Kumaun. Of these I have recorded the history of local prevalence in 40, the remaining village being Nágar on the borders of Garhwál near Ganái, where Dr. Watson made local enquiry, and has informed me that about 10 deaths had occurred amongst the Dom community of the village. In the 40 villages of certain record 277 deaths occurred. These villages are widely separated in different parts of Kumaun, so widely that they may be fairly considered as scattered throughout its northern half. The district contains a total of 6,346 villages, inhabited by people, with but few exceptions, identical in race, habits, and peculiarities of life. Yet the disease has, on no occasion of its prevalence, so far as I can learn, shown a tendency to prevail in any great number of villages with contiguous lands, and certainly in this last time of prevalence nothing of that epidemic tendency existed.

This absence of epidemic tendency would appear to exclude any supposition that the prevalence of the disease may be due to any cause affecting things enjoyed in

common by the people, such as the air they breathe, or the food they eat, or from any peculiarity in their common habits. And the enquiry becomes narrowed to a consideration of the local condition or peculiarities of the centres of population in which the disease is seen to prevail.

247. As touching this endemic peculiarity of the disease, shown by the scattered geographical position of the villages affected—many villages unaffected intervening—a study of the histories, previously recorded, will add strength to that opinion. For it will be seen that, as a rule, the prevalence, even in the village itself, is confined to one house, or one terrace, or one portion of the village.

This peculiarity is plainly shown in the rough ground-plans which accompany the histories. Isolated cases may occur amongst families inhabiting other portions of the village, but the commencing and excessive mortality appears, almost invariably, to be restricted in locality as described. And where not so restricted, a means, other than that first operating, may be clearly traced to account for the peculiarity.

248. This means is, the communication of the disease from person to person, against which the strongest and best health is no guarantee, although probably debility of body conduces to an attack by this means. I use the term "means" in preference to "cause," because the cause, whether in the first or last case of the local prevalence, is the same, namely, the specific germ or active principle of plague which can alone produce plague disease. The disease being plague, it is hardly necessary to dwell upon the fact that it is communicable from the sick to the healthy; for, of all diseases, plague possesses that peculiarity in most marked degree. This opinion rests on the record of many facts, principal of which are the death from plague of 80 medical officers of the French, and of half the medical officers of the English army during the campaign in Egypt; and the death, with hardly an exception, of some few persons who have inoculated themselves with plague matter.

249. The histories of this record provide ample evidence of the communicability of the Kumaun plague. Best amongst much, perhaps, the evidence provided in the Baunri history, para. 150 ; the Álam history, para. 225 ; and the statement concerning Tejam bridge work-people, para. 220. But the histories everywhere provide an account of a disease, not suddenly arising many cases together, but occurring, as a rule, in orderly succession of cases amongst those who lived habitually together, nursed the sick, and buried the dead. Indeed, I think the histories support the opinion that, ordinarily, the first case occurring in a village gives origin to all that succeed in that neighbourhood.

The history of the outbreak in the Balt and Bintola group of villages is as follows :—First, in Balt a young child is taken with the disease, it spreads in the family, and amongst those who nurse the sick, only. A woman of Bintola attends as a nurse; she is the first taken ill in Bintola, and the disease spreads in her family and terrace only. A boy from Sirar stays one night in an infected house at Balt; the disease commences in his family, and he is the second to die at Sirar. A man from Biraura visits an infected house in Bintola ; he is the first to die in Biraura, and the disease spreads only in his terrace amongst those who nurse him. A woman of Gajula lodges for one night an infected woman of Balt who died shortly afterwards. Only the one woman of Gajula died in that village. A woman of Sulla visits Bintola to inquire as to her daughter's welfare in this time of trouble; the disease breaks out only in this woman's family.

250. The peculiarity of the commencement of a local prevalence with the death of a woman or child is sufficiently often recorded in the histories to make it seem likely that that is the ordinary rule in cases in which the disease breaks out without clear history of communication of the disease from the sick to the healthy. On the

other hand, it seems likely, whenever the first person to die is a strong man, that then the disease has been introduced from without, as in the case of Biroura, Baunri, and Alam.

If this view is correct, and I think the histories uphold it, the inference is plain that there is something in the lives of the people which brings women and children, more readily than men, into such state of health as befits the reproduction of this old disease.

251. The evidence in support of the belief that the germs or active principle of plague are likely to be widespread over Garhwál and Kumaun is unfortunately only too clear. Since 1823 the death of 3,600 persons from this disease have been officially recorded. Without doubt the deaths have been far more numerous, and the bodies of all those who have died have, with few exceptions, been buried within or near to the site of the affected village. The custom of the country with regard to the disposal of the dead is to burn the body beside the most convenient mountain stream terminating in the Ganges. But from this good practice the people have deviated in regard to bodies dead of any pestilence—small-pox, cholera, plague—which are buried. Of all countries the Himalaya is least suited to burial of the dead. For, by reason of the rocky subsoil, it is seldom possible to dig a grave more than two feet deep ; and, as a rule, the pestilent dead are laid in shallow trenches, in the surface soil of the field nearest to the place of death, or of the terrace facing the house, or even of the floor of the house itself. This bad practice is begotten of fear, no doubt, but has been long established as a custom handed down from previous generations, and cannot easily be changed.

Fear of taking the pestilence strengthens the desire to dispose of the body with the least possible amount of handling, and it is pushed into the trench and covered up. But sometimes, with regard to plague, fear masters all other feelings, and the body is abandoned unburied, to be eventually drawn in portions about the village site by animals and birds. Such management of the dead is sufficient to account for the continuous existence of the active principle of plague disease, sometimes dormant from want of opportunity, but ever ready to affect persons suitably prepared, by any cause producing a low or bad state of health.

252. The only apparent cause likely to produce such state of health, in any member of a family affected in the outbreaks described in the histories, is the unwholesome condition of the houses, by reason of their being utilized for three purposes: namely, as habitations, as granaries, and as cowsheds. The result being a vitiated state of atmosphere in and around the habitations, certainly conducive to ill-health amongst the residents, and more especially amongst the women and children of the house, who would be more continuously influenced. This utilization of the house for three purposes, while it should, on strict sanitary principles, be reserved for one, would be likely, even with the best possible management, to be a cause of disease. For it has, I believe, been conclusively shown that the habitation of cavalry soldiers above their well-kept stables has been conducive to contagious fever amongst the men.

But with the bad management of the ignorant or careless Kumaun peasant the result must be detrimental. His autumn grain—partly unripe in unfavourable seasons, and always damp, as described in para. 209—is stored about the sleeping apartment, in open porous vessels or baskets, to slowly ripen and dry ; a process often attended with some amount of fermentation, resulting in the production of gases which vitiate the air of the close room. The lower portion of his house and its immediate precincts, for many months of the year, are much encumbered with manure. The exhalations from the cattle rise into the sleeping apartment, their fluid excretions sink into the ground below the house.

253. These unwholesome conditions, within and around the habitations would assuredly conduce to outbreaks of contagious fever amongst the residents in any

country. That in Garhwál and Kumaun they conduce to outbreaks of plague disease is due to the fact that the germs or active principle of that disease are in widespread existence throughout that country. These same insanitary conditions do, in some instances, conduce to the prevalence of a form of contagious fever called "sanjar" by the people. This sanjar may be something less formidable and fatal than plague, certainly it is less feared than plague, but it is often fatal after a very few days' illness, the deaths mostly occurring amongst the members of one family in a village. And from the character and general result, as described to me, of this sanjar disease, I think it also may be plague, ending in death before the characteristic swellings appear.

Taking Sanjar and Plague together, it would appear that contagious disease ending in speedy death is a pretty common form of disease, at all times present, somewhere or other, amongst the villagers of Garhwál and Kumaun. And I do not see how this can be prevented, so long as the homes of the people are mismanaged as described. For a time there may be a lull in the prevalence of these fatal contagious diseases, but so long as the conditions conducive to a general bad state of health remain unchanged, there will be danger of fresh outbreak commencing, probably in some very old and much neglected tenement. This tendency to commencement of the disease in a house of great age is shown in some of the histories, notably at Sulla, para. 138; at Persali, para. 194; at Bandhár para. 209; at Chachaina, para. 218; at Darkot, para. 223; at Basantkot, para. 234; at Gadera, para. 237.

254. Excepting inasmuch as any bad quality of the grain commonly consumed by the people may conduce to a low state of health, I do not think the prevalence of plague disease can be due to any peculiar condition of this, or any other article of food. At the same time I should say that Dr. Watson, a careful observer, is of opinion that the prevalence of plague in Garhwál and Kumaun may be due to the generation of a fungus in decaying grain. Dr. Watson's statement and arguments may be found in a paper headed "General Remarks on Mahámari," which closes this report.

It is undoubtedly true that rats are sometimes found dead in the houses of families about to suffer from an outbreak of plague. I have seen several of those dead rats in and about infected houses. They are not the strong black Norway rat which lives in the sewers of Europe, but a more delicate-looking grey species. All I have seen appeared to have died suddenly, as by suffocation, their bodies being in good condition, a piece of rag sometimes clenched in the teeth, and I think it likely that they may have died from the same cause, of vitiated atmosphere, as produces the bad state of health conducive to attack of plague in man. The best record of this death of rats will be found in para. 118 of the Bintola history, and it may be noticed that the dead rats were described as being found in the morning, on the floor near to the sleeping people. It seems probable that their ordinary places of exit may have been closed. If dying of poisonous grain, I should think they would be likely to die in their holes or hiding places. I have seen some live snakes near to infected villages, and one particularly live snake which came out of an infected house, as mentioned in para. 190; but I have never seen any dead snake in connection with an infected house or village. If snakes die from eating the diseased rats, cats could hardly be expected to escape. Yet, far from seeing any dead cats, I have on several occasions had some trouble in saving the life of a cat, desperately attached to an infected house about to be burnt.

I have on several occasions recorded the fact that the people of an infected house, when vacating it for a jungle residence, took with them a supply of the grain they had been eating for many previous days, lived on it in the jungle, and suffered no harm. Indeed that is the usual course of proceeding and frequent result.

255. Having stated so much, I should add that the histories contain evidence in support of the opinion that the consumption of extremely unwholesome food may conduce to an attack of plague, and particularly the evidence recorded at Kausani, to be found in para. 165, and I suppose it does this in Kumaun, because of the presence of

the active principle of plague there; as it would, in England, conduce to an attack of contagious fever—the active principle of plague having, as the result of sanitary improvement, no home there now.

256. Plague disease I think prevails in Kumaun, because certain persons are, by reason of the insanitary conditions of their lives, brought occasionally into such a bad state of health as befits them for attack of the hurtful specific influence of the disease in question, thus renewing its active prevalence. And I think the only reliable method of prevention is an improved sanitary management of the houses and homesteads throughout the country. An improvement in this direction was partially effected, with apparently good results, during the years 1854-57. In the mutiny time, of disturbance and anxiety, attention was of necessity diverted from this matter of comparatively secondary importance. The villagers lapsed into their old habits of neglectful management, and in 1860 a very serious outbreak of plague occurred with the usual result of excessive mortality. Again attention was directed to the necessity of sanitary improvement, which was effected with a great amount of reality, under the direction of a notoriously energetic medical officer, whose office of advice and guidance was strengthened by a magistrate's power to punish. The result was again most favourable. But again, as the histories of this report show, the villagers gradually returned to their former neglectful habits. The separate cowsheds which had been provided in many villages were neglected, allowed to fall into ruins, and eventually the cattle returned to their old homes beneath the sleeping apartments. And in 1876-77 plague renews its active existence in scattered centres of population; not perhaps with all the virulence of former outbreaks, but with well marked fatality, causing a great amount of suffering and anxiety throughout the hill country.

257. Such being the recorded experience of past years, and attention being now directed, for the third time, to the necessity of preventing these alarming outbreaks of disease, I think a serious endeavour should be made to confer a character of permanence upon the measures of sanitary improvement which will assuredly be again revived; at least as regards the essential element of success in this matter, which is, that the cattle shall not share the habitation or its immediate precincts. An undivided attention to this one point, resulting in permanent change of custom, would do more to recover the habitations to a good sanitary state than many repeated endeavours to ensure cleanliness or to improve ventilation. And if the lower story of the habitation, thus permanently vacated, could be utilized as a granary, to the abolition of the custom of storing grain upon the habited floor, the second probable great cause of ill-health would be sufficiently remedied.

258. This essential measure of permanently dividing the cattle from the men is worthy of attention from another point of view besides that of prevention of plague disease. The extraordinary closeness of the lower apartments now utilized as cattle pens at night—a closeness unrelieved by any ventilation whatever when the solid door is barred—has an undoubtedly hurtful effect on the cattle.

This hurtful effect is apparent enough to any casual observer who may see the cattle as they issue from these pens in the morning. They are distressed in appearance as though unrefreshed by the night's rest, and, wherever they have been crowded together, their bodies are moist with perspiration and steam in the morning air. Cattle diseases of a contagious nature are often prevalent in this hill country, and in great measure their prevalence may be due to this form of bad management.

259. In the preceding histories I have been careful to mention the death of rats, wherever such occurrence could be testified to by the residents, or by remaining members of the compromised family. Whenever, in any history, no mention is made of this occurrence, it is because the residents have denied the occurrence, or because, by the death of all the family of the infected house, there remained no person to testify to the fact.

The villages in which the death of rats in the infected house was testified to were Bintola, Chani, Kansani, Khajuli, Tailihat, East Dugora, Parsali, Sungarh, and Naukori, and in all these places the history points to an outbreak of plague disease not resulting from infection. They seem to be places in which the disease renewed its active appearance. And, as the result of careful enquiry and observation, I think it may be true that the death of rats, preceding an outbreak of the disease, points to certain local conditions or peculiarities as giving rise to the outbreak.

In no village, where the history clearly points to infection as the cause of the outbreak, could I obtain evidence of the death of rats, and I think it may be true that where rats have not died infection has given rise to the outbreak.

260. Concerning the management of the people when outbreak of the disease has occurred, I think the proper course of procedure is to isolate the compromised family with all care, but not to cause all the people of the village to vacate their homes.

I think the family or residents of a house in which a case of golá disease has occurred should vacate their house as soon as possible after the disease has declared itself, the sick person being carried out with the family, which should be lodged in temporary sheds far from the village site.

Measures for the prevention of the spread of the disease, if centered on this family, may be effectually carried out with the minimum of loss and distress to the residents of the village. This loss and distress being very great to all concerned, when the residents vacate the village site *en masse*.

When the residents vacate the village, they flee, not from any dread of their own houses or of the village site, but from dread of the infected family, their house and belongings. And if this family could be effectually isolated without delay, and their house properly dealt with, I believe the remaining population might stay with safety in their homes.

261. The evidence of the histories greatly favours the opinion that the specific poison of the disease is most potent for mischief in the house in which a case of the disease has occurred. This fact is shown most forcibly in the Balt history, para. 111 ; in the Sirar history, paras. 122, 124, 125, and 126 ; in the Bhandargaon history, para. 183 ; in the Dor history, para. 214.

On the other hand, the danger of infection appears to be greatly lessened, if at all existent, in the open air. The evidence on this point is most convincing in the Tánda history, para. 152 ; in the Phalianti history, para. 126 ; in the Chani history, para. 159.

262. The indications therefore are to remove the people of the infected house into the open air, and to take effectual measures to prevent their return to the house for any purpose. Experience has taught me that the only effectual means of preventing their return is to destroy the house, by burning it out. This extreme measure of disinfection does not, as a rule, injure the stone walls of the house, which may be readily rebuilt, and it does most effectually disinfect and cleanse the premises. And especially so, in regard to the very old houses, often infected, which could not be cleansed, without danger to life, in any other way.

This burning out is the efficient plan of disinfection which commends itself to the native mind, and it alone will restore confidence to the minds of the terror-stricken inhabitants. The people themselves have recourse to it at times, as may be seen by reference to paras. 169, 196, 211, and 234. They almost invariably burn the huts in which deaths from this disease have occurred on the hill side, and would, I believe, invariably burn an infected house, but for their fear to approach it, and their natural disinclination to injure the actual owners or heirs.

263. The proper management of the isolated family is a matter of very great importance. They must on no account be allowed to visit their house. I have good reason to believe, and the histories in several places uphold the opinion, that the continuance of the disease amongst the isolated family has been due to the fact that some one or more of its members has visited the house to fasten up the cattle there, to obtain supplies of extra clothing or supplies of food. And I think it may be true that this is the ordinary reason for the continuance of the disease amongst a compromised family living in huts on the hill side.

The family must therefore be supplied with food, brought from some place other than their own house. The clothing and blankets brought with them from the house should be burnt, and new clothing and blankets given to them. They should be encouraged to hut themselves and their cattle comfortably; be directed to remain apart from all other persons of the village, while still employing themselves in tending their cattle and watching their fields. The local civil authority should attend to their welfare and protection; and in the case of death from gola disease occurring amongst the family, should take care that the body is properly disposed of; if possible, it should be burnt. If it must be buried, the burial should be effected as thoroughly as the soil will permit, in a place not likely to be ploughed up or dug into. So soon as disease threatens, the family, with the exception of the person sickening and one other, should be encouraged to hut themselves at a new place. And after the sick person has died or recovered, the attendant should be re-clothed and the old huts burnt down.

264. In concluding this report it is necessary to add that I was accompanied during almost all the time of my inspections of infected villages by a Civil Officer of the Kumaun Commission. In the first instance by Mr. D. D. McIvor Campbell, C.S., and afterwards by Mr. Hallett Batten.

To these two officers my warmest acknowledgments are due for hearty assistance and cheerful companionship during a time of hardship, only appreciable by those who have had to work for months together, on foot, amongst hill villages. A time of labour and exposure, which certainly resulted in temporary loss of health to Mr. Campbell, and which, with its accompaniment of frequent rain and hail, is not likely to be soon forgotten by Mr. Batten.

And I should state that both these officers evinced a bravery in investigating closely the conditions within and around infected houses, a sympathy with the suffering people, and a willingness to encounter scenes of desolation and death, which I have dwelt on little in the histories, but which were very real. I think the display of such qualities amongst the terror-stricken village populations had much good effect, and well merits the favourable consideration of Government.

C. PLANCK,

Sanitary Commissioner, N.-W. Provinces and Oudh.

GENERAL REMARKS ON MÁHÁMARI.

THE Egyptian plague, the *Pestis Septica*, the *Gola rog* (bubo disease) of Garhwál is also known by the name of Máhámari (the great plague), under which name it was admirably described by Mr. Batten, of the Civil Service, in his letter to Government, North-Western Provinces, dated 1st January, 1850. It is known from all other febrile diseases by the appearance (if the patient lives long enough) of buboes in the groin, in the armpit, or below the ear. It does not in any way resemble typhoid fever. There is no pain or tenderness in the right iliac region; no rose-coloured spots on the abdomen, or behind the shoulders; no diarrhœa, no well-marked morning remission; and lastly, death generally occurs about the third day, not about the twenty-first.

2. Of all known infectious diseases, with the possible exceptions of cholera and yellow fever, plague (*gola rog*) is the most rapidly fatal. Death generally occurs within three or four days of the first symptom, often much earlier. If the patient can survive the fourth day, the buboes in the groin and elsewhere either subside of themselves or suppurate, and he often recovers. A patient I saw at Darmyari on the 9th May was believed by his friends to have recovered, and to be out of danger. Although it was only eight or nine days since he was first attacked, he was able to walk about, and had a fair appetite.

3. Of all known disease, without any exception, plague (*golarog*) has the shortest period of incubation.

The period of incubation of cholera is about 48 hours,

Ditto of yellow fever about the same,

Ditto of small-pox about 12 days,

whereas the period of incubation of plague is certainly less than 24 hours. Consequently any person who has no symptom whatever for 24 hours after visiting an infected place may consider himself safe. This well known law of Egyptian plague was well illustrated in the case of a woman who lived in the healthy village of Kheti in Sili Chandpur. She slept one night in the infected village of Khirsál in Sili Chandpur, and was attacked with plague next morning while walking home. She managed to reach her home, and the next day a child living in her house was attacked. No case ever occurred in any other house in Kheti village.

4. In Garhwál, as is well known, and as is mentioned by Dr. Renny, Dr. Pearson, Dr. Francis, and all other observers, the disease is remarkable from the fact that rats and mice often die in the houses in great numbers, some time before any human being is attacked. In some cases serpents are also found dead, and, though very rarely, jackals. Now rats and mice feed upon stored-up grain like human beings. Serpents feed upon dead or dying rats. Jackals occasionally feed on dead bodies of persons who have died of the plague. The relations of the diseased often flee to the jungles, leaving the dead bodies lying in the village. It therefore appears clear to me that the decayed grain is the cause of plague.

5. As far as is known, plague never occurs in cattle, sheep, or goats which feed on grass, shrubs, or rarely on growing corn.

6. As a rule, plague disappears in the hot weather. For this there are two reasons:—

1*st*.—Any temperature above 75° Fahrenheit destroys the infection of the Egyptian plague (Copland's Dictionary of Medicine, page 215, Part II).

2*nd*.—The new corn is cut in the hot weather, so that the villagers are no longer obliged to eat their old grain, even when it happens to be thoroughly decayed, as it now and then is. Of course the old grain is not decayed every year in every village, but it is occasionally, and then (I believe) it causes, if eaten, an outbreak of plague.

7. The disease always originates in out-of-the-way villages on high mountains, and spreads by infection to villages in the southern parganas; the reason being, that the southern villages have a greater demand for their grain, and do not keep it in store for many years, as out-of-the-way villages occasionally do.

8. The disease is much less prevalent in Garhwál than it formerly was. This is owing to the villagers having a much better market for their grain than they formerly had, owing to the great increase of the number of pilgrims who annually visit Kedarnath and Badrinath.

9. The outbreaks of plague which occur in villages in Garhwál are of two kinds :—

1*st.*—Spontaneous outbreaks गोला रोग गांदर मै आप उपजा

2*nd.*—Outbreaks caused by infection brought from previously infected villages गांव मैं दोसरे गांव से सरके आया

1*st.*—When a spontaneous outbreak occurs, it will, I believe, be invariably found to have been preceded (or more rarely accompanied or followed) by a great mortality of the rats and mice in the village, showing that the grain has become poisonous. In these spontaneous outbreaks the mortality is very great, and the people do not escape the disease, even though they flee to the jungle, unless, indeed, they also leave their grain behind, and get grain from some other village. A good example of this form I saw in the village of Kharki near Pokri, where all the 14 inhabitants of two houses died, most of them in the jungle.

2*nd.*—In outbreaks caused by infection from a previously infected village, it will generally be found that the person who brings the infection has slept a night in an infected house, or has eaten food in one. As an example of the former class of cases, there is the case of the woman of Kheti mentioned above, who slept a night in Khirsal. As an example of the latter class, there is the case of a barber of Pokri, who, leaving his village, then perfectly healthy, went and spent some hours in and got food from the spontaneously infected village of Kharki, where the 14 persons died. In the case of imported plague, it is generally confined to the house of the person who brings the infection. Villagers who do not live in his house always escape if they flee, and even the people of his house often escape if they flee early. Nothing therefore can be more distinct than the respective histories of a spontaneous and of an imported outbreak of plague. In the former the thing to be done is to burn the poisonous grain, and, perhaps, also the poisoned houses. In the latter to burn the one infected house and to send its inhabitants away from the rest of the village, and away from everybody else. In Garhwál spontaneous plague generally occurs in Rajput villages, imported plague both in Dom and Rajput villages, but more frequently in the former.

10. With regard to the treatment of persons who have caught the disease, it may be said to be all but hopeless. The only medicine I would give internally would be large quantities of common salt. The patients themselves sometimes look for it. Hyposulphite of soda might be tried, if common salt was found useless. An emetic should be given, if the patient is seen early. The common native treatment is to have the patient rubbed with oil of chándan (sandal-wood) and ashes. This seems to do good, but there is great danger to the person who rubs the oil and ashes in.

11. There is every probability that the disease originates owing to some peculiar and hitherto unknown fungus being generated in decaying grain. It is evident therefore that it would be most important to ascertain what kind of fungus it is, and on what kind of grain it first forms. I have examined a good many species of grain, but hitherto without any satisfactory result. With regard to the kind of grain on which the fungus first forms, I am inclined to believe that it is probably mandua (*Eleucine coracana*).

Several things lead me to suppose this, the most conclusive being that I have heard that at Balt, in Kumaun, a quantity of mandua was sent from the infected village of Balt to be ground at a water-mill. The rats of the water-mill, who had previously been healthy, all died after the mandua came to the water-mill.

12. I would recommend that whenever the rats and mice of a village are reported as having died, the patwári of the place should be directed to send me specimens of all the kinds of grain the rats are likely to have eaten. This might possibly be managed, though it would certainly be very difficult. I intend to examine with the microscope any suspicious grain I can get hold of in Upper Garhwál. But it would be better if specimens for examination could be sent to Drs. Lewis and Cunningham of Calcutta, especially specimens of decayed chúá and mandua.

13. It must be remembered that although the first outburst of plague is caused by eating decayed grain, yet, when once established, the disease is virulently infectious and contagious. It is almost certain death to sleep in the same room with a person who is suffering from plague. It may therefore be easily understood that the disease is occasionally spread southwards, among people who are eating perfectly wholesome grain. In this way it may possibly now and then make its way down to the plains. But the hot weather soon stops its progress, as the poison cannot propagate itself at any temperature above 75° Fahrenheit, and after March it rarely happens that the night temperature in the plains is below 75°, and the day temperature certainly never is.

14. The hill people have an idea that dirt is to a certain extent a protection against infection. This, I think, is hardly probable. The infection is so virulent that the protection given by dirt must be very small indeed. Still I think it would hardly be wise to take a bath immediately before going into an infected village.

15. There is one remarkable fact connected with the Garhwál plague which is difficult to explain. It is, that thousands of pilgrims from the plains pass every year through the infected country; and often buy grain from infected villages, and yet very few of them ever take plague. I have only heard of two cases of pilgrims dying of this disease. They were men who came last year from Trijogi Narayan and died near the village of Unsari, not far from Okhimath, where plague last year caused a very great mortality. This happened in November, and at that season Okhimath is a cold place. I have asked a number of patwáris, a number of native doctors attached to the pilgrim dispensaries, and many other people, and they all agree in saying that pilgrims from the plains are rarely affected. Three explanations of this may be given:—

1*st*.—That the pilgrims generally wear cotton clothing, not woollen or hemp, like the hill men.

2*nd*.—The pilgrims rarely eat any of the kinds of grain which are peculiar to the hills, such as mandua (*eleucina*), chúá (*amaranth*), koni, jhingora, or china (three kinds of panicum). They live almost entirely on wheat, barley, rice, and dal, which we must therefore suppose are substances which are not poisonous, even when brought from a village where the inhabitants are dying of plague. Consequently the pilgrims escape spontaneous outbreaks.

3*rd*.—They are not very likely to suffer from infection, because they only enter the hills in April, and follow a route which keeps pretty close to the valley of the Ganges, where, from April till October, the temperature even at night rarely falls below 75° F. They are certainly in danger above Okhimath on the Kedarnáth road, and above Joshimath on the Badrinath road, but the pilgrims remain up in these cold regions as short a time as they possibly can. Besides the airup there is very dry. And Copland (page 219) says that the infectious power of Egyptian plague

is greatest in cold damp air; that it exists, but is not very powerful, in cold dry air; and that it does not exist at all in hot air, that is, any air whose temperature is above 75° F.

16. Mr. Batten in his letter of 1st January, 1850, mentions the fact that European travellers and their servants escape unscathed, even when they pass through plague villages. Exactly the same explanations apply to this case as to the case of the pilgrims.

17. The experience of Dr. Renny, Dr. Pearson, Dr. Francis, and others has proved that a medical officer can without danger feel the pulse of a plague patient and give him medicine, and also that medical officers can without danger examine by dissection the body of a man who has died of the plague. That is to say, he can do these things by day, with the sun shining and the air tolerably warm. I do not believe he could do any of them with impunity after nightfall.

18. Northern Garhwál is divided into four parganas, Painkhanda to the north-east, Nagpur with its Sadabart pattis to the north-west, Badhan to the south, Dasoli in the centre. The habits of the people are identical, and the climate is very much the same in all the four. There is, however, a very great difference in their comparative liability to plague. Dr. Renny, in his notes for a report on Máhámari, dated 19th August, 1850, writes in para. 1—"this remarkable distemper first broke out in Garhwál in the year 1823. It began near Kedarnath, and for some years confined its ravages to parganas Nagpur and Badhan." Nearly 27 years have elapsed since Dr. Renny wrote this, and during these 27 years there have been repeated outbreaks of plague in these two parganas, while there has rarely been any plague in Painkhanda or Dasoli, and yet the whole of Dasoli and part of Painkhanda lie between Nagpur and Badhan, separating the one plague district from the other. This year, in accordance with the usual law, there have been a great many deaths from plague in Nagpur and Badhan. There has not been a single death from plague in Painkhanda or Dasoli. I do not think sufficient attention has been paid to this remarkable phenomenon, and no explanation, as far as I know, has ever been attempted. From the year 1823 to the year 1877, that is to say for 54 years, two tracts of country have suffered in the most frightful way from a very peculiar disease, and two other tracts, which may be said to lie between them, have scarcely suffered at all. Temperature will not explain it. Of the two very cold parganas, Painkhanda and Nagpur, one is healthy and the other not. Of the two comparatively warm parganas, Dasoli and Badhan, one is healthy and the other not. The only possible explanation I can see is, that the main pilgrim road to Badrinath passes through the two healthy parganas, and that consequently the people have always had a good market for their grain. I must admit that the pilgrims on their way up pass through part of Nagpur; but Nagpur is a very large pargana, and, as a whole, derives very little benefit from the pilgrim demand for grain compared with the two healthy parganas Dasoli and Painkhanda. From Badhan the pilgrim road is a long way distant. The road to the Niti and Mana passes also runs through the healthy parganas, and is a long way from the unhealthy ones. I have no doubt the same law will be found to hold in southern Garhwál. Mr. Batten, in appendix to settlement report, Garhwál (para. 12), page 153, states that in pargana Chándpur there are three pattis, Chándpur proper, Lohba, and Chaprakot. He goes on to state—"The people of Chaprakot have not the benefit enjoyed by those of Lohba and Chándpur of the pilgrim road running through their district." Trusting solely to this, I will venture to predict that, if statistics can be obtained, it will be found that there is on an average of years more plague in Chaprakot than there is in Chándpur or Lohba. In other words, I will venture to assert that spontaneous outbreaks of plague depend solely on a want of market for grain. The law can be, however, better and more easily observed in large divisions like parganas, than in small ones like pattis. I have seen the disease myself in Chándpur and Lohba. I have not visited Chaprakot.

19. There is an anomalous form of plague which it is necessary to notice. In this form, which is comparatively a rare one, the disease commences by the patient vomiting considerable quantities of a yellow fluid. I am inclined to believe that this form of the disease is somewhat less fatal than the ordinary form. I myself have only seen one case, but in that case the patient recovered. Copland in his account of the Egyptian plague is apparently doubtful whether this form is more severe or less severe than the ordinary one. For he says at page 198—"If vomiting be frequent or continued, if the matters ejected be black or unnatural, death will ensue. When, however, vomiting is moderate, and when it ceases after the evacuation of green, greenish, yellow, or bilious fluids, a favourable result often takes place."

20. The opinions I have formed regarding Garhwál plague are somewhat novel, and may not be generally accepted. It is not easy to prove them absolutely, but they might easily be tested in the following way by any person who is quite satisfied in his own mind that my explanations are incorrect. Let him come up to Garhwál and go into the house of a person suffering from plague after sunset on a cold damp evening, and let him feel the patient's pulse, and sit with him a minute or two. If the experimenter escapes having an attack of plague within 24 hours, my explanations are not worth much. After performing this experiment with impunity, the experimenter might proceed to eat a little chúa and a little mandua taken from a house where rats have been found dead within the previous few days. If he still escapes, my explanations will be shown to be worth nothing at all. I would recommend that the two experiments should not be performed on the same day, as, if the experimenter died, there might be doubt which experiment caused his death.

21. It is somewhat remarkable that, according to Mr. Davenport, a disease very much resembling Egyptian plague has recently been raging in the province of Yunnan in south-western China. In Yunnan the disease seems to have followed a famine, caused by the destruction of property during the Muhammadan insurrection.

The disease is said to have first killed cats, rats, mules, and other quadrupeds, and then to have attacked human beings. The cats of Yunnan are thus apparently the representatives of the snakes of Kumaun, both feeding on rats. With regard to mules, they are probably fed on grain, to a certain extent at least. Hence they suffer, while the cattle and goats of Kumaun, which get no grain, escape the disease.

W. WATSON, M.D.,

Supdt. of Vaccination, Allahabad, Jhánsi, and Benares.

APPENDICES.

ANNUAL

Deaths registered in the different districts of the

1	2	3	4			5		6
Number.	Division.	District.	*Population according to Census of 1872.*			*Area in square miles.*		Average population Per square mile.
			Male.	Female.	Total.	Miles.	Acres.	
1	Kumaun.	Kumaun	231,146	201,742	432,888	6,000	...	72
2		Garhwál	155,745	154,537	310,282	5,500	...	56
3		Tarái	102,573	83,074	185,647	919	633	202
4	Rohilkhand.	Bijnor	395,395	341,757	737,152	1,902	603	388
5		Moradabad	596,776	525,355	1,122,131	2,271	592	494
6		Bareilly	806,913	699,888	1,506,801	2,989	110	505
7		Sháhjahánpur ...	511,136	438,335	949,471	1,723	320	551
8		Budaun	503,619	430,729	934,348	2,004	536	466
9	Meerut.	Dehra Dún	68,044	47,667	115,711	1,020	471	114
10		Saháranpur	484,508	399,274	883,782	2,217	...	399
11		Muzaffarnagar ...	375,608	314,474	690,082	1,659	229	416
12		Meerut	685,404	588,510	1,273,914	2,360	264	541
13		Bulandshahr	493,682	442,911	936,593	1,910	...	490
14		Aligarh	577,263	495,845	1,073,108	1,963	455	547
15	Agra.	Etah	382,746	320,739	703,485	1,512	...	465
16		Muttra	393,854	335,726	729,580	1,611	498	551
17		Farukhabad	499,722	419,026	918,748	1,744	473	527
18		Mainpuri	426,955	338,828	765,783	1,696	186	452
19		Agra	676,323	575,636	1,251,959	1,907	339	575
20		Etáwah	369,928	298,653	668,581	1,691	...	395
21	Allahabad.	Cawnpore	619,118	536,321	1,155,439	2,336	536	495
22		Fatehpur	345,533	318,282	663,815	1,585	435	419
23		Jaunpur	545,700	480,169	1,025,869	1,556	...	659
24		Hamírpur	276,196	252,941	529,137	2,286	384	232
25		Bánda	359,765	337,846	697,611	2,908	439	240
26		Allahabad	715,110	679,135	1,394,245	2,747	190	508
27	Benares.	Gorakhpur	1,078,072	941,278	2,019,350	4,578	508	441
28		Basti	784,691	688,303	1,472,994	2,789	...	528
29		Azamgarh	826,145	705,265	1,531,410	2,565	...	597
30		Gházipur	696,572	648,829	1,345,401	2,167	600	621
31		Benares	406,344	387,355	793,699	996	121	797
32		Mirzapur	520,496	494,797	1,015,293	5,217	313	195
33	Jhánsi.	Jalaun	216,607	187,777	404,384	1,553	...	260
34		Jhánsi	167,519	150,216	317,735	1,567	..	203
35		Lalitpur	111,625	101,003	212,628	1,947	264	109
		Total for the Province,	16,406,833	14,362,223	30,769,056	81,402	539	378

FORM No. I.

North-Western Provinces, during the year 1876.

7	8			9			10	11
Number of villages in each district.	*Number of deaths registered.*			*Ratio of deaths per* 1,000 *of the population.*			Mean ratio of deaths per 1,000 during previous seven years.	Number.
	Male.	Female.	Total.	Male.	Female.	Total.		
6,346	4,977	4,254	9,231	21·53	21·08	21·32	18·65	1
4,203	3,652	2,920	6,572	23·44	18·89	21·18	19·87	2
594	4,305	3,352	7,657	41·97	40·34	41·24	35·22	3
2,067	13,791	11,584	25,375	34·87	33·89	34·42	22·54	4
2,730	17,608	14,855	32,463	29·50	28·27	28·92	20·99	5
3,082	23,351	18,650	42,001	28·93	26·64	27·87	21·03	6
2,004	16,132	13,489	29,621	31·56	30·77	31·19	27·30	7
2,140	14,719	12,611	27,330	29·22	29·27	29·25	18·03	8
396	1,353	967	2,320	19·88	20·27	20·05	15·39	9
1,938	12,347	10,161	22,508	25·48	25·44	25·46	26·36	10
885	10,332	8,755	19,087	27 51	27·84	27·65	27·65	11
1,533	11,005	8,769	19,774	16·17	14·90	15·52	26·01	12
1,778	10,809	9,541	20,350	21·08	21·54	21·72	28·53	13.
1,797	14,378	11,712	26,090	24·90	23·62	24·31	20·24	14
1,727	8,365	6,722	15,087	21·85	20·95	21·44	21·47	15
822	9,024	7,363	16,387	22·91	21·93	22·46	17·72	16
1,862	12,941	10,259	23,200	25·89	24·48	25·25	17·00	17
1,146	8,443	6,415	14,858	19·72	18·99	19·40	21·12	18
1,436	13,112	10,731	23,843	19·38	18·64	19·04	20·45	19
3,040	8,318	6,471	14,789	22·48	21·66	22·12	21·14	20
2,026	16,157	13,743	29,900	26·09	25·62	25·87	21·21	21
1,458	8,056	6,445	14,501	23·31	20·24	21·84	20·11	22
3,212	9,041	6,643	15,684	16·56	15·83	15·28	16·89	23
752	9,745	7,683	17,428	35·28	30·37	32·93	25·20	24
1,231	8,700	6,832	15,532	24 18	20·22	22·26	21·88	25
3,699	14,022	11,492	25,514	19·60	16·92	18·29	15·78	26
8,248	24,242	17,889	42,131	22·.8	19·00	20·86	18·46	27
7,555	15,210	12,054	27,264	19·38	17·51	18·50	13·53	28
6,363	14,871	11,853	26,724	18·00	16·80	17·45	15·49	29
5,206	16,815	13,509	30,324	24·13	20·82	22·53	16·79	30
1,931	10,099	8,244	18,343	24·85	21·28	23·11	17·85	31
5,722	16,148	13,308	29,456	31·02	26·89	29·01	18·56	32
923	6,181	4,690	10,871	28·53	24·97	26·88	21·63	33
678	5,914	4,888	10,802	35·33	32·53	33·99	25·22	34
749	3,595	3,144	6,739	32·20	31·12	31·69	24·33	35
91,274	397,758	321,998	719,756	24·24	22·41	23·39	20·36	

ANNUAL

Deaths registered from ALL CAUSES in the several districts of the

1	2									
Number.	District.				January.	February.	March.	April.	May.	June.
1	Kumaun	...	...	...	556	476	682	774	1,018	1,534
2	Garhwál	...	...	...	327	339	440	467	647	725
3	Tarái	...	...	...	610	622	786	909	700	489
4	Bijnor	...	...	...	1,511	1,462	1,961	2,498	3,098	3,190
5	Moradabad	...	...	...	2,00[illegible]	1,934	2,600	3,509	3,801	3,256
6	Bareilly	...	...	...	3,132	2,601	3,141	3,694	3,662	3,502
7	Sháhjahánpur	...	...	...	1,976	1,906	2,194	3,063	2,901	2,517
8	Budaun	...	...	...	1,838	1,785	2,246	2,351	2,643	2,541
9	Dehra Dún	...	...	...	138	160	171	213	245	252
10	Saháranpur	...	...	...	1,237	1,203	1,447	1,702	2,110	2,177
11	Muzaffarnagar	...	...	...	1,178	1,097	1,236	1,473	1,532	2,160
12	Meerut	...	...	...	1,509	1,153	1,275	1,390	1,534	1,829
13	Bulandshahr	...	...	...	1,490	1,217	1,406	1,282	1,290	1,704
14	Aligarh	...	...	...	1,890	1,462	1,976	2,099	1,925	2,084
15	Etah	...	...	...	1,304	1,130	1,076	1,336	1,128	1,157
16	Muttra	...	...	...	1,051	873	1,165	1,277	1,137	1,220
17	Farukhabad	...	...	...	1,425	1,451	1,686	2,428	2,220	1,793
18	Mainpuri	...	...	...	1,212	1,033	1,196	1,512	1,136	996
19	Agra	...	...	...	1,727	1,690	1,671	1,737	1,640	1,855
20	Etáwah	...	...	...	1,020	996	1,188	1,256	1,032	1,023
21	Cawnpore	...	...	...	1,891	1,927	2,209	2,532	2,282	2,500
22	Fatehpur	...	...	...	1,177	992	1,408	1,082	1,136	1,455
23	Jaunpur	...	...	...	1,146	1,025	1,460	1,746	1,481	1,497
24	Hamírpur	...	...	...	845	901	1,035	926	1,089	1,569
25	Bánda	...	...	...	996	1,051	1,241	888	1,182	1,616
26	Allahabad	...	...	...	1,908	1,630	2,288	2,305	2,742	2,644
27	Gorakhpur	...	...	...	3,288	2,933	3,481	3,543	3,750	3,856
28	Basti	...	...	...	1,790	1,591	2,065	2,259	2,362	2,957
29	Azamgarh	...	...	...	1,957	1,614	2,091	2,504	2,652	3,084
30	Gházipur	...	...	...	2,076	1,653	1,922	3,031	3,505	3,412
31	Benares	...	...	...	994	1,167	1,533	1,799	1,665	1,636
32	Mirzapur	...	...	...	1,556	1,415	2,190	2,347	2,570	3,513
33	Jalaun	...	...	...	586	502	655	647	622	868
34	Jhánsi	...	...	...	606	549	709	797	932	1,000
35	Lalitpur	...	...	...	473	401	612	567	569	555
	Total for the Province			...	48,434	43,941	54,442	61,884	63,938	68,166

FORM No. II.

North-Western Provinces, during each month of the year 1876.

3						4			5
						Total.			
July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Number.
1,143	791	597	602	541	517	4,977	4,254	9,231	1
870	714	609	529	467	438	3,652	2,920	6,572	2
290	598	920	655	615	463	4,305	3,352	7,657	3
1,810	1,788	2,332	2,471	1,606	1,445	13,791	11,584	25,375	4
2,325	2,445	3,360	3,128	2,451	1,662	17,608	14,855	32,463	5
2,677	3,498	5,044	4,682	3,623	2,745	23,351	18,650	42,001	6
2,055	2,588	3,240	3,061	2,396	1,724	16,132	13,489	29,621	7
1,960	2,254	2,976	2,877	2,253	1,606	14,719	12,611	27,330	8
165	177	197	206	197	199	1,353	967	2,320	9
1,529	1,663	2,435	3,183	2,208	1,614	12,347	10,161	22,508	10
1,557	1,438	2,031	2,212	1,659	1,514	10,332	8,755	19,087	11
1,275	1,631	2,867	2,345	1,863	1,603	11,005	8,769	19,774	12
1,300	1,816	2,737	2,588	2,096	1,474	10,809	9,541	20,350	13
1,950	2,419	3,015	3,143	2,391	1,736	14,378	11,712	26,090	14
1,235	1,278	1,532	1,588	1,120	1,203	8,365	6,722	15,087	15
1,116	1,433	2,150	2,081	1,655	1,229	9,024	7,363	16,387	16
1,398	2,235	2,708	2,210	1,889	1,757	12,941	10,259	23,200	17
976	1,167	1,594	1,426	1,210	1,408	8,443	6,415	14,858	18
1,562	2,170	3,102	2,557	2,140	1,992	13,112	10,731	23,843	19
862	1,420	1,800	1,675	1,301	1,216	8,318	6,471	14,789	20
1,880	2,498	3,824	3,025	2,866	2,466	16,157	13,743	29,900	21
1,079	917	1,315	1,336	1,328	1,281	8,056	6,445	14,501	22
1,211	1,208	1,252	1,441	1,105	1,112	9,041	6,643	15,684	23
1,635	2,332	2,047	2,055	1,743	1,251	9,745	7,683	17,428	24
1,310	1,276	1,716	1,652	1,396	1,208	8,700	6,832	15,532	25
1,903	1,900	2,239	2,229	2,004	1,722	14,022	11,492	25,514	26
3,808	3,604	4,199	3,779	3,080	3,310	24,242	17,889	42,131	27
2,443	2,025	2,479	2,394	2,385	2,514	15,210	12,054	27,264	28
2,542	2,287	2,302	2,232	1,851	1,598	14,871	11,853	26,724	29
2,806	2,214	2,771	2,592	2,155	2,187	16,815	13,509	30,324	30
1,377	1,599	2,214	1,877	1,461	1,021	10,099	8,244	18,343	31
3,094	2,677	3,194	2,777	2,233	1,890	16,148	13,308	29,456	32
767	1,357	1,520	1,551	1,105	691	6,181	4,690	10,871	33
926	1,166	1,196	1,209	898	814	5,914	4,888	10,802	34
549	598	659	613	618	525	3,595	3,144	6,739	35
54,885	61,181	77,673	73,981	60,104	51,127	397,758	321,998	719,756	

ANNUAL

Deaths registered from DIFFERENT CAUSES in the North-Western

1	2	3	4			5		
			Population according to Census of 1872.			*Cholera.*		
Number.	Division.	District.	Male.	Female.	Total.	Male.	Female.	Total.
1	Kumaun.	Kumaun	231,146	201,742	432,888	420	388	808
2		Garhwál	155,745	154,537	310,282	...	...	...
3		Tarái	102,573	83,074	185,647	392	277	669
4	Rohilkhand.	Bijnor	395,395	341,757	737,152	61	42	103
5		Moradabad	596,776	525,355	1,122,131	316	266	582
6		Bareilly	806,913	699,888	1,506,801	1,620	1,491	3,111
7		Sháhjahánpur	511,136	438,335	949,471	232	246	478
8		Budaun	503,619	430,729	934,348	45	48	94
9	Meerut.	Dehra Dún	68,044	47,667	115,711	...	...	...
10		Saháranpur	484,508	399,274	883,782	9	8	17
11		Muzaffarnagar	375,608	314,474	690,082	3	5	8
12		Meerut	684,404	588,510	1,273,914	3	...	3
13		Bulandshahr	493,682	442,911	936,593	5	2	7
14		Aligarh	577,263	495,845	1,073,108	29	25	54
15	Agra.	Etah	382,746	320,739	703,485	6	18	24
16		Muttra	393,854	335,726	729,580	19	9	28
17		Farukhabad	499,722	419,026	918,748	136	130	266
18		Mainpuri	426,955	338,828	765,783	6	4	10
19		Agra	676,323	575,636	1,251,959	11	11	22
20		Etáwah	369,928	298,653	668,581	3	8	11
21	Allahabad.	Cawnpore	619,118	536,321	1,155,439	498	424	922
22		Fatehpur	345,533	318,282	663,815	501	416	917
23		Jaunpur	545,700	480,169	1,025,869	471	342	813
24		Hamírpur	276,196	252,941	529,137	519	415	934
25		Bánda	359,765	337,846	697,611	386	308	694
26		Allahabad	715,110	679,135	1,394,245	1,110	875	1,985
27	Benares.	Gorakhpur	1,078,072	941,278	2,019,350	487	406	893
28		Basti	784,691	688,303	1,472,994	1,223	1,115	2,338
29		Azamgarh	826,145	705,265	1,531,410	1,143	973	2,116
30		Gházipur	696,572	648,829	1,345,401	1,502	1,271	2,773
31		Benares	406,344	387,355	793,699	1,036	836	1,872
32		Mirzapur	520,496	494,797	1,015,293	2,021	1,591	3,612
33	Jhánsi.	Jalaun	216,607	187,777	404,384	66	71	137
34		Jhánsi	167,519	150,216	317,735	...	...	...
35		Lalitpur	111,625	101,003	212,628	...	3	3
		Total	16,406,833	14,362,223	30,769,056	14,280	12,024	26,304

FORM No. III.

Provinces, during the year 1876.

6			7			8			9						10
									Injuries.						
Small-pox.			*Fevers.*			*Bowel Complaints.*			*Suicide.*			*Wounds.*			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
4	8	12	2,108	1,549	3,657	993	1,019	2,012	7	14	21	28	14	42	1
...	...	...	1,815	1,431	3,246	1,359	1,150	2,509	15	21	36	22	13	35	2
43	59	102	3,361	2,584	5,945	338	308	646	2	...	2	3	1	4	3
2,105	2,028	4,133	6,493	5,235	11,728	3,409	2,776	6,185	10	16	26	26	17	43	4
3,098	2,644	5,742	8,633	7,378	16,011	3,401	2,798	6,199	15	18	33	71	57	128	5
1,695	1,338	3 033	16,085	12,751	28,836	2,827	2,201	5,028	18	27	45	26	10	36	6
630	607	1,237	10,364	8,555	18,919	2,856	2,414	5,270	45	94	139	32	18	50	7
1,372	1,247	2,619	7,763	6,536	14,299	3,431	3,097	6,528	18	39	57	31	19	50	8
1	1	2	637	453	1,090	453	357	810	3	3	6	8	2	10	9
1,253	1,061	2,314	7,362	6,178	13,540	2,477	1,926	4,403	12	10	22	29	23	52	10
968	874	1,842	7,581	6,380	13,961	1,379	1,183	2,562	6	12	18	4	4	8	11
67	54	121	9,491	7,718	17,209	620	352	972	4	11	15	3	6	9	12
192	139	331	9,301	8,370	17,671	812	650	1,462	1	4	5	17	7	24	13
635	559	1,194	9,571	7,617	17,188	2,925	2,558	5,483	25	35	60	25	11	36	14
135	162	297	6,943	5,516	12,459	264	203	467	6	15	21	18	6	24	15
320	266	586	6,385	5,240	11,625	1,498	1,196	2,694	7	13	20	10	2	12	16
356	277	633	8,582	6,832	15,414	1,681	1,267	2,948	14	72	86	20	18	38	17
34	44	78	7,992	6,017	14,009	134	93	227	10	39	49	14	2	16	18
216	194	410	9,578	8,044	17,622	1,939	1,374	3,313	22	36	58	51	43	94	19
74	82	156	7,354	5,693	13,047	328	241	569	16	36	52	15	4	19	20
122	128	250	13,251	11,324	24,575	900	703	1,603	9	38	47	16	9	25	21
137	106	243	4,735	3,924	8,659	1,561	1,200	2,761	14	27	41	12	10	22	22
98	98	196	7,736	5,564	13,300	84	69	153	6	28	34	11	4	15	23
957	805	1,762	4,775	3,815	8,590	2,475	1,823	4,298	18	42	60	14	11	25	24
407	339	746	5,780	4,428	10,208	974	776	1,750	17	40	57	16	20	36	25
173	205	378	9,489	7,928	17,362	1,898	1,333	3,231	18	43	61	14	4	18	26
408	347	755	18,807	13,632	32,439	740	532	1,272	12	29	41	15	11	26	27
536	468	1,004	11,451	8,971	20,422	447	259	706	3	13	16	13	2	15	28
60	88	148	10,782	8,401	19,183	1,716	1,199	2,915	16	53	69	24	13	37	29
259	231	490	14,103	11,097	25,200	465	356	821	8	44	52	17	16	33	30
134	134	268	6,735	5,618	12,353	1,188	840	2,028	10	40	50	17	17	34	31
471	477	948	11,065	9,262	20,327	845	583	1,428	12	41	53	26	19	45	32
128	106	234	4,260	3,184	7,444	1,036	803	1,839	16	29	45	8	5	13	33
947	850	1,797	3,138	2,620	5,758	1,096	822	1,918	8	43	51	9	4	13	34
534	579	1,113	1,108	1,065	2,173	1,069	771	1,840	6	14	20	2	4	6	35
18,569	16,605	35,174	274,564	220,905	495,469	49,618	39,232	88,850	429	1,039	1,468	667	426	1,093	

ANNUAL

Deaths registered from DIFFERENT CAUSES in the North-Western

1	2	3	9							10		
			Injuries.							All other Causes.		
			Accident.			Snake-bite or killed by Wild Beasts.						
Number	Division.	District.	Male.	Female	Total.	Male.	Female	Total.	Total Injuries	Male.	Female	Total.
1	Kumaun.	Kumaun	45	26	71	16	16	32	166	1,355	1,220	2,576
2		Garhwál	93	59	152	15	19	34	257	333	227	560
3		Tarái	9	13	22	7	9	16	44	150	101	251
4	Rohilkhand.	Bijnor	45	43	88	60	77	137	294	1,582	1,350	2,932
5		Moradabad	93	72	165	74	83	157	483	1,907	1,539	3,446
6		Bareilly	155	100	255	81	123	204	540	844	609	1,453
7		Sháhjalánpur	135	107	242	56	69	125	556	1,782	1,379	3,161
8		Budaun	112	92	204	90	162	252	563	1,856	1,371	3,227
9	Meerut.	Dehra Dún	24	12	36	2	3	5	57	225	136	361
10		Saháranpur	75	35	110	19	21	40	224	1,111	899	2,010
11		Muzaffarnagar	72	44	116	18	17	35	177	301	236	537
12		Meerut	104	92	196	23	14	37	257	690	522	1,212
13		Bulandshahr	69	61	130	20	12	32	191	392	296	688
14		Aligarh	70	75	145	20	15	35	276	1,078	817	1,895
15	Agra.	Etah	84	72	156	20	17	37	238	889	713	1,602
16		Muttra	95	78	173	13	14	27	232	677	545	1,222
17		Farukhabad	155	88	243	36	46	82	449	1,961	1,529	3,490
18		Mainpuri	121	75	196	17	18	35	296	115	123	238
19		Agra	131	110	241	23	30	53	446	1,141	889	2,030
20		Etáwah	90	45	135	29	29	58	264	409	333	742
21	Allahabad.	Cawnpore	138	82	220	57	51	108	400	1,166	984	2,150
22		Fatehpur	130	120	250	31	31	62	375	935	611	1,546
23		Jaunpur	160	201	361	56	97	153	563	419	240	659
24		Hamirpur	98	97	195	36	48	84	364	853	627	1,480
25		Bánda	102	109	211	86	150	236	540	932	662	1,594
26		Allahabad	221	192	413	58	110	168	660	1,091	807	1,898
27	Benares.	Gorakhpur	207	232	439	243	324	567	1,073	3,323	2,376	5,699
28		Basti	169	206	375	90	136	226	632	1,278	884	2,162
29		Azamgarh	161	248	409	70	130	200	715	899	748	1,647
30		Gházipur	168	219	387	42	74	116	588	251	201	452
31		Benares	106	127	233	35	59	94	411	838	573	1,411
32		Mirzapur	176	162	338	76	116	192	628	1,456	1,057	2,513
33	Jhánsi.	Jalaun	49	36	85	27	56	83	226	591	400	991
34		Jhánsi	43	44	87	5	16	21	172	668	489	1,157
35		Lalitpur	27	30	57	27	20	47	130	892	658	1,480
		Total ...	3,732	3,404	7,136	1,578	2,212	3,790	13,487	34,321	26,151	60,472

FORM No. III.

Provinces, during the year 1876—(concluded.)

11			12									
Total of Deaths from all Causes.			*Ratio of Deaths per* 1,000 *of population.*									
									From all Causes.			
Male.	Female.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	Male.	Female.	Total.	Number.
4,977	4,254	9,231	1·86	·03	8·44	4·64	·38	5·95	21·53	21·08	21·32	1
3,652	2,920	6,572	...	...	10·46	8·08	·82	1·80	23·44	18·89	21·18	2
4,305	3,352	7,657	3·60	·54	32·02	3·47	·23	1·35	41·97	40·34	41·24	3
13,791	11,584	25,375	·14	5·60	15·90	8·39	·39	3·97	34·87	33·89	34·42	4
17,608	14,855	32,463	·51	5·11	14·26	5·52	·43	3·07	29·50	28·27	28·92	5
23,351	18,650	42,001	2·06	2·01	19·13	3·33	·35	·96	28·93	26·64	27·87	6
16,132	13,489	29,621	·50	1·30	19·92	5·55	·58	3·32	31·56	30·77	31·19	7
14,719	12,611	27,330	·10	2·80	15·30	6·98	·60	3·45	29·22	29·27	29·25	8
1,353	967	2,320	...	·01	9·42	7·00	·49	3·11	19·88	20·27	20·05	9
12,347	10,161	22,508	·01	2·61	15·32	4·98	·25	2·27	25·48	25·44	25·46	10
10,332	8,755	19,087	·01	2·66	20·23	3·71	·25	·77	27·51	27·84	27·65	11
11,005	8,769	19,774	...	·09	13·50	·76	·20	·95	16·07	14·90	15·52	12
10,809	9,541	20,350	...	·35	18·86	1·56	·20	·73	21·08	21·54	21·72	13
14,378	11,712	26,090	·05	1·11	16·01	5·10	·25	1·76	24·90	23·62	24·31	14
8,365	6,722	15,087	·03	·42	17·71	·66	·33	2·27	21·85	20·95	21·44	15
9,024	7,363	16,387	·03	·80	15·93	3·69	·31	1·67	22·91	21·93	22·46	16
12,941	10,259	23,200	·28	·68	16·77	3·20	·48	3·79	25·89	24·48	25·25	17
8,443	6,415	14,858	·01	·10	18·29	·29	·38	·31	19·72	18·99	19·40	18
13,112	10,731	23,843	·01	·32	14·07	2·64	·35	1·62	19·38	18·64	19·04	19
8,318	6,471	14,789	·01	·28	19·51	·85	·39	1·10	22·48	21·66	22·12	20
16,157	13,743	29,900	·79	·21	21·26	1·38	·34	1·86	26·09	25·62	25·87	21
8,056	6,445	14,501	1·38	·36	13·04	4·15	·56	2·32	23·31	20·24	21·84	22
9,041	6,643	15,684	·79	·19	12·96	·14	·54	·64	16·56	13·83	15·28	23
9,745	7,683	17,428	1·76	3·33	16·23	8·12	·68	2·79	35·28	30·37	32·93	24
8,700	6,832	15,532	·99	1·06	14·63	2·50	·77	2·28	24·18	20·22	22·26	25
14,022	11,492	25,514	1·42	·27	12·45	2·31	·47	1·36	19·60	16·92	18·29	26
24,242	17,889	42,131	·44	·37	16·06	·62	·53	2·82	22·48	19·00	20·86	27
15,210	12,054	27,264	1·58	·68	13·86	·47	·43	1·47	19·38	17·51	18·50	28
14,871	11,853	26,724	1·38	·09	12·52	1·90	·46	1·07	18·00	16·80	17·45	29
16,815	13,509	30,324	2·06	·36	18·73	·61	·43	·33	24·13	20·82	22·53	30
10,099	8,244	18,343	2·35	·33	15·56	2·55	·51	1·77	24·85	21·28	23·11	31
16,148	13,308	29,456	3·55	·93	20·02	1·40	·61	2·47	31·02	26·89	29·01	32
6,181	4,690	10,871	·33	·57	18·40	4·54	·55	2·45	28·53	24·97	26·88	33
5,914	4,888	10,802	...	5·65	18·12	6·03	·54	3·64	35·33	32·53	33·99	34
3,595	3,144	6,739	·01	5·23	10·21	8·65	·61	6·96	32·20	31·12	31·69	35
397,758	321,598	719,756	·85	1·14	16·10	2·88	·43	1·96	24·24	22·41	23·39	

ANNUAL FORM No. IV.

Deaths registered according to AGE in several districts of the North-Western Provinces, during the year 1876.

Number.	District.	*Infant children unable to walk.*		*Boys and girls.*		*Adults.*		*Old people.*		*Total.*			Number.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	
1	Kumaun ...	1,025	818	1,051	846	1,351	1,074	1,550	1,516	4,977	4,254	9,231	1
2	Garhwál ...	1,122	881	671	566	709	585	1,150	868	3,652	2,920	6,572	2
3	Tarái ...	724	693	1,071	834	1,303	876	1,207	949	4,305	3,352	7,657	3
4	Bijnor ...	4,691	4,284	3,902	3,283	1,878	1,352	3,320	2,715	13,791	11,584	25,375	4
5	Moradabad ...	5,518	4,890	5,902	4,584	2,087	1,948	4,101	3,433	17,608	14,855	32,463	5
6	Bareilly ...	5,448	4,628	6,536	4,890	4,483	3,665	6,884	5,467	23,351	18,650	42,001	6
7	Sháhjahánpur ...	4,808	4,449	4,404	3,492	2,107	1,888	4,813	3,660	16,132	13,489	29,621	7
8	Budaun ...	5,001	4,407	3,691	2,933	1,859	1,618	4,168	3,653	14,719	12,611	27,330	8
9	Dehra Dún ...	302	236	188	154	364	269	499	308	1,353	967	2,320	9
10	Saháranpur ...	4,002	3,347	3,027	2,378	2,111	1,903	3,207	2,533	12,347	10,161	22,508	10
11	Muzaffarnagar ...	3,773	3,220	2,545	1,946	1,504	1,527	2,510	2,062	10,332	8,755	19,087	11
12	Meerut ...	2,882	2,346	2,268	1,459	2,302	2,212	3,553	2,752	11,005	8,769	19,774	12
13	Bulandshahr ...	2,958	2,677	3,010	2,353	1,899	1,922	2,942	2,589	10,809	9,541	20,350	13
14	Aligarh ...	3,799	3,241	3,903	2,792	2,201	2,101	4,475	3,578	14,378	11,712	26,090	14
15	Etah ...	2,675	2,272	1,364	996	1,295	1,253	3,031	2,301	8,365	6,722	15,087	15
16	Muttra ...	1,697	1,374	2,453	1,741	1,745	1,613	3,129	2,635	9,024	7,363	16,387	16
17	Farukhabad ...	3,795	2,964	2,300	1,733	2,205	2,195	4,641	3,367	12,941	10,259	23,200	17
18	Mainpuri ...	1,846	1,584	1,184	740	1,835	1,738	3,578	2,353	8,443	6,415	14,858	18
19	Agra ...	3,005	2,435	2,347	1,688	2,587	2,577	5,173	4,031	13,112	10,731	23,843	19
20	Etawah ...	2,118	1,819	1,102	822	1,781	1,472	3,317	2,358	8,318	6,471	14,789	20
21	Cawnpore ...	4,684	3,769	2,326	1,756	3,064	3,059	6,083	5,159	16,157	13,743	29,900	21
22	Fatehpur ...	1,310	931	1,280	959	2,308	1,997	3,158	2,558	8,056	6,445	14,501	22
23	Jaunpur ...	1,227	860	1,932	1,492	2,638	1,936	3,244	2,355	9,041	6,643	15,684	23
24	Hamírpur ...	2,348	1,971	2,398	1,858	2,104	1,517	2,895	2,337	9,745	7,683	17,428	24
25	Bánda ...	1,574	1,320	1,546	1,184	2,546	1,759	3,034	2,569	8,700	6,832	15 ,532	25
26	Allahabad ...	2,539	2,075	3,016	2,374	3,528	2,939	4,939	4,104	14,022	11,492	25,514	26
27	Gorakhpur ...	6,241	4,526	4,954	3,650	6,571	4,680	6,476	5,033	24,242	17,889	42,131	27
28	Basti ...	4,021	3,243	3,757	2,882	3,460	2,684	3,972	3,245	15,210	12,054	27,264	28
29	Azamgarh ...	3,484	2,567	3,436	2,398	3,333	2,945	4,612	3,943	14,971	11,853	26,724	29
30	Gházipur ...	3,048	2,334	4,911	3,514	4,560	3,744	4,296	3,917	16,815	13,509	30,324	30
31	Benares ...	2,265	1,692	2,268	2,016	2,413	1,972	3,153	2,564	10,099	8,244	18,343	31
32	Mirzapur ...	3,372	2,946	3,632	2,876	4,347	3,407	4,797	4,079	16,148	13,308	29,456	32
33	Jalaun ...	1,438	1,135	1,056	743	1,508	1,084	2,179	1,728	6,181	4,690	10,871	33
34	Jhánsi ...	1,680	1,458	1,497	1,238	1,313	1,008	1,424	1,184	5,914	4,888	10,802	34
35	Lalitpur ...	1,173	1,179	825	672	1,038	825	559	468	3,595	3,144	6,739	35
	Total ...	101,593	84,521	91,753	69,862	82,343	69,344	122,069	98,371	397,758	321,998	719,756	

ANNUAL FORM No. V.

Deaths registered according to CLASSES in the several districts of the North-Western Provinces, during the year 1876.

1	2	3				4				5				
		Population according to Census of 1872.				*Number of Deaths registered.*				*Ratio of Deaths per* 1,000 *of population.*				
Number	District.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Hindus.	Muhammadans.	Christians.	Total.	Number.
1	Kumaun ...	425,963	5,569	1,356	432,888	9,066	155	10	9,231	21·28	27·83	7·37	21·32	1
2	Garhwál ...	308,398	1,799	85	310,282	6,549	21	2	6,572	21·23	11·67	23·53	21·18	2
3	Tarái ...	122,657	62,977	13	185,647	4,382	3,275	...	7,657	35·72	52·00	...	41·24	3
4	Bijnor ...	493,601	243,455	96	737,152	16,534	8,837	4	25,375	33·49	36·29	41·66	34·42	4
5	Moradabad ...	751,779	369,949	403	1,122,131	21,210	11,243	10	32,463	28·21	30·39	24·81	28·92	5
6	Bareilly ...	1,197,583	308,682	536	1,506,801	33,318	8,675	8	42,001	27·82	28·10	14·92	27·87	6
7	Sháhjahánpur ...	822,576	126,599	296	949,471	25,300	4,316	5	29,621	30·75	34·09	16·89	31·19	7
8	Budaun ...	794,532	139,687	129	934,348	23,105	4,222	3	27,330	29·08	30·22	23·25	29·25	8
9	Dehra Dún ...	102,814	12,420	477	115,711	2,011	273	36	2,320	19·56	21·98	75·47	20·05	9
10	Saháranpur ...	604,422	279,015	345	883,782	14,557	7,940	11	22,508	24·08	28·45	31·88	25·46	10
11	Muzaffarnagar ...	498,950	191,097	35	690,082	13,004	6,083	...	19,087	26·06	31·83	...	27·65	11
12	Meerut ...	991,226	281,857	831	1,273,914	14,861	4,892	21	19,774	14·99	17·35	25·27	15·52	12
13	Bulandshahr ...	760,602	175,900	91	936,593	16,784	3,565	1	20,350	22·06	20 26	10·99	21·72	13
14	Aligarh ...	955,121	117,911	76	1,073,108	23,261	2,825	4	26,090	24·35	23·95	52·63	24·31	14
15	Etah ...	636,149	67,278	58	703,485	13,642	1,440	5	15,087	21·44	21·40	86·20	21·44	15
16	Muttra ...	671,653	57,914	13	729,580	15,144	1,242	1	16,387	22·34	21·44	76·92	22·46	16
17	Farukhabad ...	816,733	101,538	477	918,748	20,390	2,809	1	23,200	24·96	27·66	2·09	25·25	17
18	Mainpuri ...	724,663	40,965	155	765,783	14,153	702	3	14,858	19 53	17·13	19·35	19·40	18
19	Agra ...	1,126,825	123,568	1,566	1,251,959	21,350	2,465	28	23,843	18·94	19·94	17 87	19·04	19
20	Etáwah ...	631,923	36,671	87	668,581	13,970	819	...	14,789	22·10	22·39	...	22·12	20
21	Cawnpore ...	1,065,786	89,215	438	1,155,439	27,797	2,098	5	29,900	26·08	23·51	11·41	25·87	21
22	Fatehpur ...	593,256	70,554	5	663,815	12,992	1,509	...	14,501	21·89	21·38	...	21·84	22
23	Jaunpur ...	929,525	96,319	25	1,025,869	14,597	1,081	6	15,684	15·70	11 23	240·00	15·28	23
24	Hamírpur ...	495,339	33,775	23	529,137	16,470	957	1	17,428	33·25	28·33	43·48	32·93	24
25	Bánda ...	657,107	40,498	6	697,611	14,762	769	1	15,532	22·46	18 98	166 66	22·26	25
26	Allahabad ...	1,211,778	181,574	893	1,394,245	22,730	2,765	19	25,514	18·75	15·22	21·16	18·29	26
27	Gorakhpur ...	1,819,445	199,372	533	2,019,350	38,170	3,951	10	42,131	20·97	19·81	18·76	20·86	27
28	Basti ...	1,247,201	225,784	9	1,472,994	23,123	4,141	...	27,264	18·56	18·34	...	18·50	28
29	Azamgarh ...	1,333,805	197,581	24	1,531,410	23,313	3,406	5	26,724	17·47	17·28	208·35	17·45	29
30	Gházipur ...	1,221,810	123,455	136	1,345,401	27,857	2,462	5	30,324	22·79	19·94	36 76	22·53	30
31	Benares ...	714,510	78,844	345	793,699	16,949	1,387	7	18,343	23·72	17·59	20·29	23·11	31
32	Mirzapur ...	949,654	64,889	750	1,015,293	27,674	1,775	7	29,456	29·14	27·35	9·33	29·01	32
33	Jalaun ...	378,855	25,528	1	404,384	10,320	546	5	10,871	27·24	21·38	...	26·88	33
34	Jhánsi ...	305,151	12,417	167	317,735	10,433	369	...	10,802	34·18	29 71	...	33·99	34
35	Lalitpur ...	207,686	4,782	160	212,628	6,623	116	...	6,739	31·88	24·25	...	31·69	35
	Grand Total ...	26,569,968	4,189,348	10,640	30,769,056	616,401	103,131	224	719,756	23·19	24·61	21·05	23·39	

ANNUAL

Deaths registered from CHOLERA in several districts of the

1.	2	3						
Number.	District.	*Population according to Census of 187·.*			January.	February.	March.	April.
		Male.	Female.	Total.				
1	Kumaun	231,146	201,742	432,888	...	...	...	8
2	Garhwál	155,745	154,537	310,282	...	...	...	...
3	Tarái	102,573	83,074	185,647	...	...	...	...
4	Bijnor	395,395	341,757	737,152	1	1	4	4
5	Moradabad	596,776	525,355	1,122,131	...	2	...	8
6	Bareilly	806,913	699,888	1,506,801	...	...	...	4
7	Sháhjahánpur	511,136	438,335	949,471	...	...	...	...
8	Budaun	503,619	430,729	934,348	4	...	2	4
9	Dehra Dún	68,044	47,667	115,711	...	...	...	...
10	Saháranpur	484,508	399,274	883,782	...	...	3	...
11	Muzaffarnagar	375,608	314,474	690,082	3	...	...	...
12	Meerut	685,404	588,510	1,273,914	1	...	1	...
13	Bulandshahr	493,682	442,911	936,593	1	...	2	...
14	Aligarh	577,263	495,845	1,073,108	...	...	...	1
15	Etah	382,746	320,739	703,485	...	...	1	1
16	Muttra	393,854	335,726	729,580	...	3	...	4
17	Farukhabad	499,722	419,026	9,18,748	...		...	...
18	Mainpuri	426,955	338,828	765,783	...	..	...	...
19	Agra	676,323	575,636	1,251,959	...	1	7	1
20	Etáwah	369,928	298,653	668,581	...	...	1	1
21	Cawnpore	619,118	536,321	1,155,439	...	1	...	3
22	Fatehpur	345,533	318,282	663,815	...	...	1	6
23	Jaunpur	545,700	480,169	1,025,869	...	7	30	181
24	Hamírpur	276,196	252,941	529,137	...	...	...	1
25	Bánda	359,765	337,846	697,611	...	...	...	2
26	Allahabad	715,110	679,135	1,394,245	4	3	54	215
27	Gorakhpur	1,078,072	941,278	2,019,350	...	...	1	1
28	Basti	784,691	688,303	1,472,994	2	...	...	53
29	Azamgarh	826,145	705,265	1,531,410	...	...	18	173
30	Gházipur	696,572	648,829	1,345,401	...	...	39	418
31	Benares	406,344	387,355	793,699	3	143	244	338
32	Mirzapur	520,496	494,797	1,015,293	2	23	193	242
33	Jalaun	216,607	187,777	404,384	...	...	...	...
34	Jhánsi	167,519	150,216	317,735	...	...	...	...
35	Lalitpur	111,625	101,003	212,628	...	...	...	2
	Total for the Province ...	16,406,833	14,362,223	30,769,056	21	185	531	1,671

FORM No. VI.

North-Western Provinces, during each month of the year 1876.

4								5			6			7
								Total.			*Ratio of Deaths per 1,000 of population.*			
May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
176	409	155	38	9	13	...	...	420	388	808	1·81	1·92	1·86	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
3	28	...	204	355	79	...	...	392	277	669	3·80	3·33	3·60	3
2	...	...	2	63	26	...	...	61	42	103	·15	·12	·14	4
7	18	7	52	352	132	2	2	316	266	582	·52	·50	·51	5
159	152	123	614	1,326	612	120	1	1,620	1 491	3,111	2·00	2·13	2·06	6
...	...	...	30	232	182	31	3	232	246	478	·45	·56	·50	7
1	3	5	2	24	44	4	1	46	48	94	·09	·11	·10	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
4	6	...	...	3	1	...	...	9	8	17	·01	·02	·01	10
...	2	...	1	...	...	...	2	3	5	8	...	·01	·01	11
...	1	...	...	...	...	...	...	3	...	3	...	...	...	12
1	2	...	...	1	...	...	...	5	2	7	·01	...	...	13
6	5	5	8	20	2	7	...	29	25	54	·05	·05	·05	14
1	11	4	4	1	...	1	...	6	18	24	·01	·05	·03	15
...	2	2	5	6	6	...	...	19	9	28	·04	·02	·03	16
5	2	6	128	121	2	...	1	136	130	266	·27	·31	·28	17
2	4	2	...	2	...	...	...	6	4	10	·01	·01	·01	18
2	4	2	1	...	4	...	...	11	11	22	·01	·01	·01	19
...	3	3	1	...	2	...	...	3	8	11	...	·02	·01	20
40	233	101	186	264	54	40	...	498	424	922	·80	·79	·79	21
193	493	194	13	14	3	...	...	501	416	917	1·45	1·30	1·38	22
183	217	169	14	9	2	1	...	471	342	813	·86	·71	·79	23
18	96	218	488	112	1	...	...	519	415	934	1·87	1·64	1·76	24
35	336	254	22	45	...	...	...	386	308	694	1·07	·91	·99	25
720	663	221	54	35	13	3	...	1,110	875	1,985	1·55	1·28	1·42	26
88	374	205	139	83	2	...	...	487	406	893	·45	·43	·44	27
277	1,081	765	102	33	5	4	16	1,223	1,115	2,338	1·55	1·62	1·58	28
365	913	515	74	44	14	...	...	1,143	973	2,116	1·38	1·37	1·38	29
902	865	359	78	88	22	2	...	1,502	1,271	2,773	2·15	1·95	2·06	30
241	400	236	135	89	31	7	5	1,036	836	1,872	2·54	2·15	2·35	31
433	1,268	1,120	191	132	55	23	...	2,031	1,591	3,612	3·8	3·21	3·55	32
...	2	1	25	96	13	...	...	66	71	137	·30	·37	·33	33
...	...	...	...	...	...	...	...	...	...	...	...	...	...	34
1	...	...	...	...	...	...	...	...	3	3	...	·02	·01	35
3,865	7,593	4,672	2,611	3,559	1,320	245	31	14,280	12,024	26,304	·87	·83	·85	

ANNUAL

Deaths registered from SMALL-POX in several districts of the

1	2	3			4					
Number.	District.	*Population according to Census of 1872.*			January.	February.	March.	April.	May.	June.
		Male.	Female.	Total.						
1	Kumaun ...	231,146	201,742	432,888	...	...	...	...	1	1
2	Garhwál ...	155,745	154,537	310,282	...	...	...	...	...	...
3	Tarái ...	102,373	83,074	185,647	8	25	38	28	1	...
4	Bijnor ...	395,395	341,757	737,152	38	90	187	598	1,080	1,256
5	Moradabad ...	596,776	525,355	1,122,131	162	254	582	1,191	1,427	1,149
6	Bareilly ...	896,913	699,888	1,506,801	47	87	216	456	629	855
7	Sháhjahánpur ...	511,136	438,335	949,471	23	36	83	216	353	318
8	Budaun ...	503,619	430,729	934,348	68	57	114	263	607	659
9	Dehra Dún ...	68,044	47,667	115,711	...	...	...	...	...	...
10	Saháranpar ...	484,508	399,374	883,732	88	88	166	273	453	519
11	Muzaffarnagar ...	375,608	314,474	690,082	39	35	80	188	327	453
12	Meerut ...	685,404	588,510	1,273,914	8	6	4	23	27	20
13	Bulandshahr ...	493,682	442,911	936,593	15	18	23	34	41	80
14	Aligarh ...	577,263	495,845	1,073,108	13	26	89	192	245	291
15	Etah ...	382,746	320,739	703,485	9	9	23	27	49	76
16	Muttra ...	393,854	335,726	729,580	17	32	116	149	130	68
17	Farukhabad ...	499,722	419,026	918,748	11	27	49	135	143	137
18	Mainpuri ...	426,955	338,828	765,783	1	4	11	7	10	13
19	Agra ...	676,323	575,636	1,251,959	27	11	24	28	57	71
20	Etáwah ...	369,928	298,653	668,581	7	6	14	23	25	47
21	Cawnpore ...	619,118	536,321	1,155,439	7	8	11	24	43	64
22	Fatehpur ...	345,533	318,282	663,815	8	15	35	29	41	55
23	Jaunpur ...	545,700	480,169	1,025,869	1	4	12	41	39	43
24	Hamírpur ...	276,196	252,941	529,137	57	83	123	137	224	450
25	Bánda ...	359,765	337,846	697,611	40	41	83	57	115	194
26	Allahabad ...	715,110	679,135	1,394,245	9	10	69	76	72	66
27	Gorakhpur ...	1,078,072	941,278	2,019,350	48	73	122	180	143	87
28	Basti ...	784,691	688,309	1,472,994	32	53	105	271	160	189
29	Azamgarh ...	826,145	705,265	1,531,410	8	7	20	22	22	36
30	Gházipur ...	696,572	648,829	1,345,401	28	39	68	107	108	65
31	Benares ...	406,344	387,355	793,699	11	27	32	49	59	30
32	Mirzapur ...	520,496	494,797	1,015,293	18	26	95	180	181	171
33	Jalaun ...	216,607	187,777	404,384	7	9	15	15	24	67
34	Jhánsi ...	167,519	150,216	317,735	71	103	211	269	274	253
35	Lalitpur ...	111,625	101,003	212,628	96	83	162	154	178	141
	Grand total for the Province ...	16,406,833	14,362,223	30,769,056	1,032	1,392	2,982	5,451	7,291	7,924

FORM No. VII.

North-Western Provinces, during each month of the year 1876.

						5			6			7
						Total.			*Ratio of Deaths per* 1,000 *of population.*			
July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
9	...	...	1	...	...	4	8	12	·01	·03	·03	1
...	...	...	...	...	...	...	...	...	...	...	...	2
...	2	...	...	...	...	43	59	102	·41	·71	·54	3
494	190	84	41	30	45	2,105	2,028	4,133	5·32	5·93	5·60	4
523	191	72	44	53	94	3,098	2,644	5,742	5·19	5·03	5·11	5
465	153	79	30	10	6	1,695	1,338	3,033	2·10	1·91	2·01	6
130	32	15	4	2	25	630	607	1,237	1·23	1·38	1·30	7
361	138	66	50	74	162	1,372	1,247	2,619	2·72	2·89	2·80	8
1	...	...	...	...	1	1	1	2	·01	·02	·01	9
261	118	132	104	53	49	1,253	1,061	2,314	2·58	2·65	2·61	10
271	143	71	60	49	126	968	874	1,842	2·57	2·78	2·66	11
12	2	8	3	6	2	67	54	121	·09	·09	·09	12
39	20	3	8	4	46	192	139	331	·38	·40	·35	13
210	57	31	15	10	15	635	559	1,194	1·10	1·12	1·11	14
36	43	8	7	6	4	135	162	297	·35	·50	·42	15
43	15	3	2	4	7	320	266	586	·81	·79	·80	16
66	27	19	5	6	8	356	277	633	·71	·66	·68	17
15	8	6	3	...	...	34	44	78	·08	·13	·10	18
66	31	19	12	18	46	216	194	410	·31	·33	·32	19
18	7	6	1	...	2	74	82	156	·20	·27	·23	20
35	24	13	5	5	11	122	128	250	·19	·23	·21	21
39	10	3	5	...	...	137	106	243	·39	·33	·36	22
27	10	14	1	4	...	98	98	196	·17	·20	·19	23
359	193	61	33	23	19	957	805	1,762	3·46	3·18	3·33	24
127	31	11	9	21	17	407	339	146	1·13	1·00	1·06	25
36	14	10	2	5	9	173	205	378	·24	·30	·27	26
46	24	15	3	8	6	408	347	755	·38	·36	·37	27
87	64	31	3	3	6	536	468	1,004	·63	·67	·68	28
11	13	2	2	2	3	60	88	148	·07	·12	·09	29
51	9	10	2	2	1	259	231	490	·37	·35	·36	30
34	8	7	1	...	10	134	134	268	·32	·34	·33	31
106	54	47	24	19	18	471	477	948	·90	·96	·93	32
64	27	6	...	...	...	128	106	234	·59	·56	·57	33
290	183	70	30	11	32	947	850	1,797	5·65	5·65	5·65	34
133	52	19	29	33	33	534	579	1,113	4·78	5·73	5·23	35
4,465	1,893	941	539	461	803	18,569	16,605	35,174	1·13	1·15	1·14	

ANNUAL

Deaths registered from FEVER in the several districts of the

1	2	3							
		Population according to Census of 1872.							
Number.	District.	Male.	Female.	Total.	January.	February.	March.	April.	May
1	Kumaun	231,146	201,742	432,888	253	216	210	324	287
2	Garhwál	155,742	154,537	310,282	171	176	196	217	318
3	Tarái	102,573	83,074	185,647	571	553	668	746	570
4	Bijnor	395,395	341,757	737,152	829	750	1,052	1,119	1,135
5	Moradabad	596,776	525,355	1,122,131	1,142	1,074	1,380	1,509	1,514
6	Bareilly	806,913	699,888	1,506,801	2,391	1,996	2,406	2,744	2,356
7	Sháhjahánpur	511,136	438,335	949,471	1,379	1,360	1,553	2,036	1,818
8	Budaun	503,619	430,729	934,348	896	1,035	1,254	1,213	1,302
9	Dehra Dún	68,044	47,667	115,711	65	83	78	121	102
10	Saháranpur	484,508	399,274	883,782	743	708	856	999	1,113
11	Muzaffarnagar	375,608	314,474	690,082	984	894	952	1,059	1,016
12	Meerut	685,404	588,510	1,273,914	1,268	995	1,097	1,194	1,313
13	Bulandshahr	493,682	442,911	936,593	1,293	1,046	1,230	1,073	1,067
14	Aligarh	577,263	495,845	1,073,108	1,331	1,137	1,518	1,482	1,295
15	Etáh	382,746	320,739	703,485	1,120	993	528	1,108	974
16	Muttra	393,854	335,726	729,580	704	624	809	825	747
17	Farukhabad	490,722	419,026	918,748	1,060	1,062	1,247	1,827	1,551
18	Mainpuri	426,955	338,828	765,783	1,171	983	1,143	1,443	1,093
19	Agra	676,323	575,636	1,251,959	1,312	1,341	1,362	1,376	1,277
20	Etawah	369,928	298,653	668,581	917	909	1,090	1,142	941
21	Cawnpore	619,118	536,321	1,155,439	1,568	1,691	1,984	2,150	1,869
22	Fatehpur	345,533	318,282	663,815	707	645	963	708	586
23	Jaunpur	545,700	480,169	1,025,869	1,076	925	1,320	1,433	1,143
24	Hamírpur	276,196	252,941	529,137	482	528	602	529	556
25	Bánda	359,765	337,846	697,611	751	804	955	654	811
26	Allahabad	716,110	679,135	1,394,245	1,395	1,236	1,703	1,553	1,528
27	Gorakhpur	1,078,072	941,278	2,019,350	2,660	2,308	2,748	2,764	2,912
28	Basti	784,691	688,303	1,472,994	1,558	1,371	1,734	1 690	1,738
29	Azamgarh	826,145	705,265	1,531,410	1,550	1,288	1,661	1,830	1,751
30	Gházipur	696,572	648,829	1,345,401	1,928	1,512	1,713	2,366	2,312
31	Benares	406,344	387,355	793,699	743	756	957	1,076	1,037
32	Mirzapur	520,496	494,797	1,015,293	1,275	1,144	1,640	1,593	1,559
33	Jalaun	216,607	187,777	404,384	429	370	521	500	453
34	Jhánsi	167,519	150,216	317,735	356	291	334	342	457
35	Lalitpur	111,625	101,003	212,628	146	102	148	153	166
	Total for the Province ...	16,406,833	14,362,223	30,769,056	36,224	32,996	40,012	42,898	40,657

FORM No. VIII.

North-Western Provinces, during each month of the year 1876.

4							5			6			
							Total.			*Ratio of Deaths per 1,000 of population.*			
June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
516	469	309	284	296	264	229	2,108	1,549	3,657	9·11	7·67	8·44	1
331	388	319	331	316	254	229	1,815	1,431	3,246	11·65	9·26	10·46	2
899	224	327	477	508	511	391	3,361	2,584	5,945	32·76	31·10	32·02	3
1,123	623	780	1,177	1,344	1,004	792	6,493	5,235	11,728	16·42	15·31	15·90	4
1,292	1,051	1,246	1,694	1,697	1,464	948	8,633	7,378	16,011	14·46	14·04	14·26	5
2,094	1,628	2,033	2,772	3,244	2,866	2,806	16,085	12,751	28,836	19·93	18·21	19·13	6
1,529	1,309	1,608	1,814	1,840	1,561	1,112	10,364	8,555	18,919	20·27	19·51	19·92	7
1,114	941	1,115	1,648	1,548	1,320	913	7,763	6,536	14,299	15·41	15·17	15·30	8
103	73	65	95	108	98	99	637	453	1,090	9·36	9·50	9·42	9
1,044	774	915	1,558	2,202	1,490	1,138	7,362	6,178	13,540	15·19	15·47	15·32	10
1,413	977	971	1,573	1,728	1,291	1,103	7,581	6,380	13,961	20·18	20·28	20·23	11
1,610	1,113	1,391	2,066	2,090	1,685	1,387	9,491	7,718	17,209	13·84	13·11	13·50	12
1,416	1,064	1,504	2,445	2,336	1,908	1,389	9,301	8,370	17,671	18·84	18·89	18·86	13
1,276	1,233	1,418	1,769	1,969	1,536	1,224	9,571	7,617	17,188	16·57	15·36	16·01	14
939	1,005	971	1,197	1,306	911	1,007	6,943	5,516	12,459	18·13	17·19	17·71	15
851	769	942	1,581	1,571	1,259	943	6,385	5,240	11,625	16·21	15·60	15·93	16
1,169	895	1,205	1,547	1,358	1,274	1,219	8,582	6,832	15,414	17·17	16.80	16·77	17
904	861	1,079	1,473	1,368	1,154	1,347	7,992	6,017	14,009	18·71	17·75	18·29	18
1,406	1,061	1,469	2,084	1,828	1,644	1,462	9,578	8,044	17,622	14·16	13·97	14·07	19
880	713	1,169	1,542	1,496	1,172	1,076	7,354	5,693	13,047	19·88	19·06	19·51	20
1,922	1,497	1,922	2,905	2,514	2,439	2,114	13,251	11,324	24,575	21·40	21·11	21·26	21
590	523	522	818	893	866	838	4,735	3,924	8,659	13·41	12·32	13·04	22
1,117	904	1,012	1,082	1,288	974	1,026	7,736	5,564	13,300	14·17	11·58	12·96	23
657	599	788	959	1,165	956	769	4,775	3,815	8,590	17·29	15·08	16·23	24
783	587	794	1,103	1,130	953	883	5,780	4,428	10,208	16·06	13·10	14·63	25
1,485	1,194	1,197	1,516	1,640	1,571	1,344	9,439	7,923	17,362	13·19	11·66	12·45	26
2,728	2,424	2,555	3,139	2,952	2,529	2,720	18,807	13,632	32,439	17·44	14·48	16·06	27
1,454	1,327	1,534	2,025	1,965	1,973	2,053	11,451	8,971	20,422	14·59	13·03	13·86	28
1,648	1,564	1,646	1,747	1,759	1,482	1,257	10,782	8,401	19,183	13·05	11·91	12·52	29
2,215	2,244	1,968	2,509	2,391	2,007	2,035	14,103	11,097	25,200	20·24	17·10	18·73	30
905	853	1,069	1,592	1,463	1,144	758	6,735	5,618	12,353	16·57	14·50	15·56	31
1,665	1,485	1,871	2,377	2,232	1,896	1,590	11,065	9,262	20,327	21·25	18·71	20·02	32
619	507	822	900	1,026	773	524	4,260	3,184	7,444	19·66	16·95	18·40	33
508	386	571	656	758	600	499	3,138	2,620	5,758	18·73	17·44	18·12	34
157	175	216	232	234	260	184	1,108	1,065	2,173	9·32	10·54	10·21	35
39,862	33,440	39,323	52,687	53,563	45,089	38,808	274,564	220,905	495,469	16·73	15·38	16·10	

ANNUAL

Deaths registered from BOWEL COMPLAINTS in the several districts of

1	2	3							
		Population according to Census of 1872.							
Number.	District.	Male.	Female.	Total.	January.	February.	March.	April.	May.
1	Kumaun	231,146	201,742	432,888	122	102	145	164	218
2	Garhwál	155,745	154,537	310,282	93	119	182	178	254
3	Tarái	102,578	83,074	185,647	24	34	64	74	60
4	Bijnor	395,395	341,757	737,152	375	384	432	495	601
5	Moradabad	596,776	525,355	1,122,131	354	339	352	446	491
6	Bareilly	806,913	699,888	1,506,801	452	306	318	347	368
7	Sháhjahánpur	511,136	438,335	949,471	318	275	304	515	428
8	Budaun	503,619	430,729	934,348	566	443	524	505	444
9	Dehra Dún	68,044	47,667	115,711	46	43	45	60	101
10	Saháranpur	484,508	399,274	883,782	256	260	293	279	324
11	Muzaffarnagar	375,608	314,474	690,082	103	122	137	180	136
12	Meerut	685,404	588,510	1,273,914	89	40	40	49	85
13	Bulandshahr	493,682	442,911	936,593	126	83	85	76	124
14	Aligarh	577,263	495,845	1,073,108	325	180	193	256	235
15	Etah	382,746	320,739	703,485	23	13	14	64	36
16	Muttra	393,854	335,726	729,580	224	129	140	197	155
17	Farukhabad	499,722	419,026	918,748	201	177	207	284	291
18	Mainpuri	426,955	338,828	765,783	14	15	16	25	14
19	Agra	676,323	575,636	1,251,959	181	183	139	179	162
20	Etáwah	369,928	298,653	668,581	42	39	33	38	38
21	Cawnpore	619,118	536,321	1,155,439	129	99	80	162	164
22	Fatehpur	345,583	318,282	663,815	333	187	214	197	194
23	Jaunpur	545,700	480,169	1,025,869	14	17	16	9	18
24	Hamírpur	276,196	252,941	529,137	207	199	226	171	198
25	Bánda	359,765	337,846	697,611	93	83	85	54	79
26	Allahabad	715,110	679,135	1,394,245	320	246	279	271	261
27	Gorakhpur	1,078,072	941,278	2,019,350	75	75	83	114	131
28	Basti	784,691	688,303	1,472,994	67	44	58	72	62
29	Azamgarh	826,145	705,265	1,531,410	243	193	252	301	324
30	Gházipur	696,572	648,829	1,345,101	51	47	40	61	92
31	Benares	406,344	387,355	793,699	135	129	156	162	168
32	Mirzapur	520,496	494,797	1,015,293	57	67	96	99	116
33	Jalaun	216,607	187,777	404,384	93	48	56	69	92
34	Jhánsi	167,519	150,216	317,735	103	84	80	94	103
35	Lalitpur	111,625	101,003	212,628	98	90	154	124	93
	Total for the Province ...	16,406,833	14,362,223	30,769,056	5,952	4,894	5,5[illegible]	[illegible],371	6,659

FORM No. IX.

the North-Western Provinces, during each month of the year 1876.

4							5			6			7
							Total.			*Ratio of Deaths per 1,000 of population*			
June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Number.
328	255	210	143	132	103	90	993	1,019	2,012	4·29	5·05	4·64	1
318	403	306	212	153	146	145	1,359	1,150	2,509	8·72	7·44	8·08	2
23	34	47	76	54	92	64	338	308	646	3·29	3·70	3·47	3
522	427	535	653	782	555	421	3,409	2,776	6,185	8·62	8·12	8·39	4
411	404	588	861	936	641	376	3,401	2,798	6,199	5·69	5·32	5·52	5
268	301	516	657	646	520	329	2,827	2,201	5,028	3·50	3·14	3·33	6
396	332	523	760	635	455	329	2,856	2,414	5,270	5·58	5·50	5·55	7
448	335	608	841	898	584	332	3,431	3,097	6,528	6·81	7·19	6·98	8
118	66	70	64	75	63	59	453	357	810	6·65	7·48	7·00	9
370	315	447	537	605	426	291	2,477	1,926	4,403	5·11	4·82	4·98	10
243	232	242	324	351	258	234	1,379	1,183	2,562	3·67	3·76	3·71	11
72	50	81	124	137	93	112	620	352	972	·90	·59	·76	12
101	130	188	182	158	125	84	812	650	1,462	1·64	1·46	1·56	13
351	317	659	981	942	677	367	2,925	2,558	5,483	5·06	5·15	5·10	14
27	42	42	48	68	38	52	264	203	467	·68	·63	·66	15
167	191	302	376	363	272	177	1,498	1,196	2,694	3·80	3·56	3·69	16
217	158	332	387	326	202	166	1,681	1,267	2,948	3·36	3·02	3·20	17
11	14	20	42	17	23	16	134	93	227	·31	·27	·29	18
175	208	395	707	464	277	243	1,939	1,374	3,313	2·86	2·38	2·64	19
28	33	94	80	65	39	45	328	241	569	·88	·80	·85	20
99	61	93	249	151	166	150	900	703	1,603	1·45	1·31	1·38	21
171	182	182	253	214	281	323	1,561	1,200	2,761	4·51	3·77	4·15	22
14	10	10	5	19	12	9	84	69	153	·15	·14	·14	23
207	272	561	678	660	586	333	2,475	1,823	4,298	8·96	7·20	8·12	24
107	118	175	250	276	264	166	974	776	1,750	2·70	2·29	2·50	25
197	210	267	331	343	276	230	1,898	1,333	3,231	2·65	1·96	2·31	26
148	117	181	126	102	61	59	740	532	1,272	·68	·56	·62	27
63	63	70	65	42	44	56	447	259	706	·56	·37	·47	28
299	226	248	216	234	184	195	1,716	1,199	2,915	2·07	1·70	1·90	29
155	57	34	62	107	44	71	465	356	821	·66	·54	·61	30
140	122	190	321	221	162	122	1,188	840	2,028	2·92	2·16	2·55	31
119	109	191	221	188	98	67	845	583	1,428	1·62	1·17	1·40	32
89	107	291	312	342	246	94	1,036	803	1,839	4·78	4·27	4·54	33
102	140	294	319	268	179	153	1,096	822	1,918	6·54	5·47	6·03	34
135	122	195	271	221	181	156	1,069	771	1,840	9·57	7·63	8·65	35
6,639	6,163	9,187	11,733	11,225	8,373	6,116	49,618	39,232	88,850	3·02	2·73	2·88	

ANNUAL

Annual Statement of BIRTHS AND DEATHS registered within the limits of

1	2	3	4	5	6		
Division.	District.	Number.	Name of Municipality.	Population according to Census of 1872.	Births.		
					Male.	Female.	Total.
Kumaun	Kumaun	1	Almora	4,125	38	40	78
	Tarái	2	Naini Tal	3,511	47	37	84
		3	Kásbipur	13,221	314	269	583
		4	Bijnor	13,066	378	349	727
		5	Chándpur	12,033	323	272	595
Rohilkhand.	Bijnor	6	Dhámpur	6,555	182	179	361
		7	Nagina	19,696	630	580	1,210
		8	Najibabad	19,656	500	438	938
		9	Moradabad	59,866	1,279	1,077	2,356
		10	Dhanaura	5 287	95	101	196
	Moradabad	11	Chandausi	23,540	547	497	1,044
		12	Amroha	34,779	796	706	1,502
		13	Sambhal	34,639	663	538	1,201
		14	Bareilly	90,691	1,676	1,340	3,016
	Bareilly	15	Pilibhit	29,840	491	373	864
		16	Bisalpur	9,250	261	258	519
	Sháhjahánpur	17	Sháhjahánpur	79,487	1,689	1,478	3,167
		18	Tilhar	18,825	539	420	959
		19	Budaun	31,227	1,040	952	1,992
	Budaun	20	Bilsi	6,115	161	168	329
		21	Ujháni	7,656	205	208	413
		22	Sahaswán	17,061	481	429	910
Meerut.	Dehra Dún	23	Dehra	15,971	168	110	278
		24	Mussoorie	1,464	33	25	58
		25	Saháranpur	45,019	857	584	1,441
	Saháranpur	26	Hardwár Union	18,739	351	271	622
		27	Deoband	19.383	367	227	594
		28	Kairána	17,742	466	355	821
	Muzaffarnagar	29	Kándhla	11,026	288	279	567
		30	Muzaffarnagar	10,793	249	186	435
		31	Shámli	9,300	198	178	376
		32	Meerut	51,991	1,197	935	2,132
		33	Gháziabad	10,366	177	183	360
		34	Baraut	8,404	192	165	357
	Meerut	35	Bágpat	7,367	169	111	280
		36	Shahdra	7,257	153	123	276
		37	Hápur	14,544	315	269	584
		38	Pilkhuwa	5,938	171	144	315
		39	Bulandshahr	14,812	430	409	839
	Bulandshahr	40	Anúpshahr	9,336	204	166	370
		41	Sikandrabad	18 349	392	337	729
		42	Khúrja	26,858	850	759	1,609
		43	Koil	55,846	1,335	1,150	2,485
		44	Háthras	30,900	792	721	1,513
	Aligarh	45	Sikandra Rao	10,814	425	310	735
		46	Atrauli	15,622	389	349	738
		47	Harduaganj	5,005	110	95	205
		48	Etah	8,044	193	126	319
		49	Soron	13,658	321	260	581
Agra.	Etah	50	Kásganj	15,764	344	275	619
		51	Márehra	19,214	183	164	347
		52	Aliganj	7,912	215	174	389
	Muttra	53	Muttra	58,840	1,366	1,136	2,502
		54	Kosi	12,770	331	302	633
	Farukhabad	55	Brindaban	21,004	358	303	661
	Mainpuri	56	Farukhabad	75,951	1,880	1,699	3,579
		57	Mainpuri	18,601	434	406	840
	Agra	58	Agra	150,677	3,295	2,923	6,218
		59	Jalesar	14,902	400	345	745
		60	Fatehpur Síkri	8,513	223	187	410
		61	Firozabad	13,788	223	162	390
	Etawah	62	Etawah	30,549	647	530	1,177
		63	Jaswantnagar	5,310	95	67	162
Allahabad.	Cawnpore	64	Cawnpore	98,476	1,456	1,031	2,487
	Fatehpur	65	Fatehpur	19,064	532	449	981
	Jaunpur	66	Jaunpur	35,003	537	406	943
	Banda	67	Banda	26,642	299	212	511
	Allahabad	68	Allahabad	145,864	1,231	1,002	2,233
	Gorakhpur	69	Gorakhpur	51,633	1,158	1,111	2,269
	Azamgarh	70	Azamgarh	15,980	253	232	485
Benares.	Gházipur	71	Ghazipur	39,508	722	566	1,288
	Benares	72	Ballia	10,275	114	84	198
		73	Benares	187,341	1,987	1,481	3,468
	Mirzapur	74	Mirzapur	77,229	834	645	1,479
		75	Chunar	12,289	221	178	399
		76	Orai	5,158	204	161	365
Jhansi.	Jalaun	77	Kalpi	15,570	342	201	543
		78	Kunch	14,448	379	369	748
	Jhansi	79	Jhansi	1,596	19	11	30
		80	Mau Ranipur	23,123	630	589	1,219
	Lalitpur	81	Lalitpur	8,976	208	157	365
			Total	2,236,844	44,252	37,094	81,346

FORM No. X.

the several Municipalities in the North-Western Provinces, during the year 1876.

7	8			9	10	11	12
Ratio of Births to 1,000 of the population.	Deaths.			Ratio of Deaths to 1,000 of the population.	Number.	Name of Municipality.	Remarks.
	Male.	Female.	Total.				
18·91	91	116	207	50·18	1	Almora.	
23·92	88	60	148	42·15	2	Naini Tal.	
44·09	375	280	655	...	3	Kashipur	
55·64	367	373	740	56·63	4	Bijnor.	
49·44	315	275	590	49·03	5	Chandpur.	
55·07	158	176	334	50·95	6	Dhampur.	
61·43	525	463	988	50·16	7	Nagina.	
47·72	514	441	955	48·58	8	Najibabad.	
39·35	1,175	1,100	2,275	38·00	9	Moradabad.	
37·07	112	96	208	39·54	10	Dhanaura.	
44·35	518	450	968	41·12	11	Chandausi.	
43·18	747	693	1,440	41·40	12	Amroha.	
34·67	428	401	829	23·93	13	Sambhal	
33·25	1,956	1,894	3,850	42·45	14	Bareilly.	
28·95	652	572	1,224	41·01	15	Pilibhit.	
56·10	240	222	462	49·94	16	Bisalpur.	
39·84	1,497	1,457	2,954	37·16	17	Shâhjahânpur.	
50·94	522	445	967	51·36	18	Tilhar.	
63·70	690	664	1,354	43·36	19	Budaun.	
53·80	126	104	230	37·61	20	Bilsi.	
53·94	187	154	341	44·54	21	Ujhani.	
53·33	372	350	722	42·31	22	Sahaswan.	
18·03	161	137	298	18·65	23	Dehra.	
39·61	46	22	68	46·44	24	Mussooree.	
32·00	851	798	1,649	36·62	25	Saháranpur.	
33·19	364	219	583	31·11	26	Hardwar Union.	
30·64	261	265	526	27·13	27	Deoband.	
46·27	353	310	663	37·36	28	Kairana.	
51·42	227	253	480	43·53	29	Kandhla.	
40·30	149	147	296	27·42	30	Muzaffarnagar.	
40·43	230	267	497	53·44	31	Shamli.	
41·00	1,033	822	1,855	35·68	32	Meerut.	
34·72	126	142	268	25·85	33	Ghaziabad.	
42·48	125	157	282	33·55	34	Baraut.	
38·00	109	103	212	28·77	35	Bagput.	
38·03	87	82	169	25·28	36	Shahdra.	
40·15	213	186	399	27·43	37	Hapur.	
53·04	70	73	143	24·08	38	Pilkhuwa.	
56·64	278	253	531	35·84	39	Bulandshahr.	
39·63	163	161	324	34·70	40	Anupshahr.	
39·72	259	243	502	27·35	41	Sikandrabad.	
59·90	426	381	807	30·04	42	Khurja.	
44·49	1,078	1,088	2,166	38·78	43	Koil.	
48·96	774	695	1,469	47·54	44	Hathras.	
67·96	324	191	515	47·62	45	Sikandra Rao.	
47·24	297	325	622	39·81	46	Atrauli.	
39·38	136	154	290	55·71	47	Harduaganj.	
39·65	146	120	266	33·06	48	Etah.	
42·53	237	221	458	33·53	49	Soron.	
39·26	256	234	490	31·08	50	Kasganj.	
37·66	127	111	238	25·83	51	Marehra.	
49·16	135	121	256	32·35	52	Aliganj.	
42·52	1,042	1,028	2,070	35·18	53	Muttra.	
49·56	200	167	367	28·73	54	Kosi.	
31·47	396	346	742	35·32	55	Brindaban.	
47·12	1,510	1,375	2,885	37·98	56	Farukhabad.	
45·15	365	334	699	37·57	57	Mainpuri.	
41·26	2,287	2,079	4,366	28·97	58	Agra.	
49·99	279	249	528	35·43	59	Jalesar.	
48·16	119	115	234	27·48	60	Fatehpur Sikri.	
28·28	230	215	445	32·27	61	Firozabad.	
38·52	443	377	820	26·84	62	Etawah.	
30·50	84	55	139	26·17	63	Jaswantnagar.	
25·25	1,680	1,498	3,178	32·27	64	Cawnpore.	
51·45	512	415	927	48·62	65	Fatehpur.	
26·94	448	314	762	21·76	66	Jaunpur.	
19·18	384	402	786	29·50	67	Banda.	
15·30	738	696	1,434	9·83	68	Allahabad.	
43·94	823	707	1,530	29·63	69	Gorakhpur.	
30·35	244	236	480	30·03	70	Azamgarh.	
32·60	685	597	1,282	32·44	71	Ghazipur.	
19·27	73	45	118	11·48	72	Ballia.	
18·51	1,999	1,765	3,764	20·09	73	Benares.	
19·15	1,038	964	2,002	25·92	74	Mirzapur.	
32·46	292	260	552	44·91	75	Chunar.	
70·76	188	118	306	59·32	76	Orai.	
34·87	258	243	501	32·17	77	Kalpi.	
51·77	296	217	513	35·50	78	Kunch.	
18·79	23	15	38	23·81	79	Jhansi.	
52·71	657	579	1,236	53·49	80	Mau Ranipur.	
40·66	139	114	253	28·18	81	Lalitpur.	
36·36	38,127	34,593	72,720	32·51			

ANNUAL

Statement showing the deaths registered in all CANTONMENTS of the

1	2	3	4				5			6			7			8		
Number.	Cantonment.	Population according to Census of 1872.	Class.				*Cholera.*			*Small-pox.*			*Fevers.*			*Bowel Complaints.*		
			Christians.	Muhammadans.	Hindus.	Other classes.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	Chakráta ...	1,099	2	15	17	...	...	...	...	...	...	...	12	3	15	5	1	6
2	Landour ...	791	...	10	16	2	...	...	...	1	...	1	12	13	25	...	1	1
3	Dehra Dún ...	1,132	...	...	5	1	...	...	...	...	...	...	1	1	2	...	1	1
4	Roorkee ...	1,153	7	7	9	9	2	...	2	...	...	...	13	9	22	1	...	1
5	Meerut ...	26,394	6	235	434	25	...	...	...	...	...	...	222	261	483	15	18	33
6	Naini Tál ...	445	...	...	6	1	...	...	...	1	...	1	2	1	3	...	...	...
7	Ránikhet ...	6,000	2	22	14	22	...	...	...	...	...	...	10	5	15	16	2	18
8	Almora ...	745	2	...	11	2	2	3	5	1	...	1	3	...	3	...	...	...
9	Bareilly ...	5,837	12	39	152	2	12	14	26	...	...	...	65	57	122	15	6	21
10	Moradabad ...	1,043	3	9	17	7	1	...	1	...	...	...	7	4	11	6	...	6
11	Sháhjahánpur ...	5,752	...	80	96	...	1	1	2	21	23	44	32	28	60	21	14	35
12	Fatehgarh ...	4,192	...	21	81	28	...	...	...	7	4	11	29	28	57	3	4	7
13	Agra ...	18,736	3	54	322	1	...	...	...	1	1	2	129	105	234	26	19	45
14	Muttra ...	4,132	...	9	69	...	...	...	...	...	...	...	37	33	70	...	...	...
15	Cawnpore ...	33,840	...	87	397	1	27	19	46	...	1	1	174	150	324	5	8	13
16	Allahabad ...	6,450	3	21	79	3	13	3	16	4	1	5	33	30	63	4	3	7
17	Bánda ...	1,136	11	11	14	8	1	...	1	...	...	...	16	8	24	1	1	2
18	Jhánsi ...	4,162	1	21	37	2	...	...	...	...	...	...	30	13	43	...	2	2
19	Benares ...	5,403	...	20	73	...	...	2	2	1	...	1	31	38	69	5	4	9
20	Chunar ...	144	...	...	1	3	1	...	1	...	...	...	1	...	1	...	1	1
21	Gorakhpur ...	1,014	1	4	15	7	...	...	...	...	...	...	2	6	8	...	...	...
	Total ...	129,510	53	665	1,865	124	60	42	102	37	30	67	861	793	1,654	123	85	208

FORM No. XI.

North-Western Provinces, during the year 1876.

9												10			11			12								13	14
Injuries.																		Age at time of Death.									
Suicide.			*Wounds.*			*Acci-dents.*			*Snake-bite or killed by wild beasts.*			Total, Injuries.	*All other causes.*			*Total of Deaths from all causes.*			*Infants unable to walk.*		*Boys and girls.*		*Adults.*		*Old people.*		Ratio of deaths to 1,000 of population.	
																		Under 1 year.		1 to 15 years.		15 to 45 years.		Above 45 years.			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		Number.
1	...	1	4	...	4	3	1	4	...	...	...	9	3	1	4	28	6	34	1	1	...	1	22	4	5	...	33·69	1
1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	14	14	28	3	...	4	4	2	7	5	3	35·39	2
...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	3	3	6	1	...	1	...	1	1	...	2	5·30	3
1	...	1	...	...	...	...	...	...	...	...	...	1	6	...	6	23	9	32	7	3	3	1	6	2	7	3	27·75	4
1	1	2	...	1	1	4	5	9	...	...	...	12	85	87	172	327	373	700	98	111	63	62	67	107	99	93	26·52	5
...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	5	2	7	3	1	2	1	...	...	...	...	15·73	6
...	...	...	...	...	...	2	...	2	...	...	...	2	15	10	25	43	17	60	4	6	...	3	21	5	18	3	10·00	7
...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	6	9	6	15	...	...	4	1	2	4	3	1	20·13	8
1	...	1	...	...	...	1	...	1	...	...	...	2	19	15	34	113	92	205	24	22	43	31	21	20	25	19	35·12	9
...	...	...	...	...	...	1	...	1	...	...	...	1	11	6	17	26	10	36	5	3	4	1	16	2	1	4	34·51	10
1	...	1	1	...	1	1	...	1	...	...	...	3	18	14	32	96	80	176	29	14	38	42	15	12	14	12	30·59	11
1	...	1	...	...	...	1	...	1	...	1	1	3	32	20	52	73	57	130	18	9	20	13	12	15	23	20	31·01	12
...	...	...	...	...	...	1	...	1	1	...	1	2	53	44	97	211	169	380	80	51	44	36	31	34	56	48	20·28	13
...	...	...	...	...	...	...	...	...	...	...	...	...	6	2	8	43	35	78	15	9	6	7	4	8	18	11	18·87	14
...	1	1	...	...	...	...	2	2	1	...	1	4	47	50	97	254	231	485	51	45	59	53	62	74	82	59	14·33	15
...	...	...	3	2	5	1	...	1	1	...	1	7	5	3	8	64	42	106	12	16	23	9	21	12	8	5	16·43	16
...	...	...	...	...	...	...	...	...	...	...	...	...	10	7	17	28	16	44	7	3	7	2	9	6	5	5	38·73	17
...	...	...	1	...	1	1	...	1	...	...	...	2	11	3	14	43	18	61	14	8	5	1	16	2	8	7	14·65	18
...	...	...	...	...	...	1	...	1	...	...	...	1	8	3	11	46	47	93	12	10	11	9	9	14	14	14	17·21	19
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3	1	4	...	...	...	...	2	...	1	1	27·77	20
...	...	...	...	...	...	...	...	...	...	1	1	1	11	7	18	13	14	27	2	8	1	...	6	3	4	3	26·62	21
7	2	9	9	3	12	17	8	25	3	2	5	51	348	277	625	1,465	1,242	2,707	386	320	338	277	345	332	396	313	20·90	

A.—VACCINE

Statement No. 1. showing particulars of vaccination in

Number.	Circle of superintendence.	District.	Population of district according to Census of 1872.	Average population per square mile.	Average number of vaccinators employed throughout the season.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.
						Male.	Female	Total.	
1	2	3	4	5	6	7			8
1	Kumaun & Garhwál.	Kumaun	432,888	72	14	13,409	12,397	25,806	1,843
2		Garhwál	310,282	56	7	13,626	13,030	26,656	3,808
3		Tarái	185,647	202	6	4,081	3,527	7,608	1,268
		Total of Circle ...	928,817	...	27	31,116	28,954	60,070	2,225
4	Rohilkhand.	Bijnor	737,152	388	19	11,537	12,031	23,568	1,240
5		Moradabad	1,122,131	494	20	11,492	12,912	24,404	1,220
6		Bareilly	1,506,801	505	24	14,130	16,022	30,152	1,256
7		Sháhjahánpur	949,471	551	14	9,042	8,710	17,752	1,268
8		Budaun	934,348	466	16	9,936	11,534	21,470	1,342
		Total of Circle ...	5,249,903	...	93	56,137	61,209	117,346	1,262
9	Agra and Meerut.	Independent Garhwál ...	1,005,961	...	4	2,090	1,960	4,050	1,012
10		Dehra Dún	115,711	114	4	2,277	1,890	4,167	1,042
11		Saháranpur	883,782	399	24	13,487	14,164	27,651	1,152
12		Muzaffarnagar	690,082	416	16	7,610	7,850	15,460	966
13		Meerut	1,273,914	541	26	18,913	18,324	37,237	1,432
14		Bulandshahr	936,593	490	17	7,850	8,189	16,039	943
15		Aligarh	1,073,108	547	27	12,379	13,493	25,872	958
16		Etah ...	703,485	465	6	4,461	3,798	8,259	1,376
17		Muttra	887,355	551	15	8,673	8,945	17,618	1,174
18		Farukhabad	918,748	527	12	5,294	4,872	10,166	847
19		Mainpuri	765,783	452	6	4,577	5,203	9,780	1,630
20		Agra	1,094,184	575	19	8,797	9,017	17,814	937
21		Etáwah	668,681	395	8	5,402	5,460	10,862	1,357
		Total of Circle ...	11,017,287	...	194	101,810	103,165	204,975	1,114
22	Allahabad and Jhánsi.	Cawnpore	1,155,439	495	22	14,594	14,246	28,840	1,311
23		Fatehpur	663,815	419	14	7,140	7,156	14,296	1,021
24		Jaunpur	1,025,869	659	11	5,362	4,057	9,419	856
25		Hamírpur	529,137	232	12	5,510	5,884	11,394	949
26		Bánda	697,611	240	17	4,945	5,156	10,101	594
27		Allahabad	1,394,245	508	17	4,748	4,808	9,556	562
28		Jalaun	404,384	260	13	7,599	7,579	15,178	1,167
29		Jhánsi	317,735	203	9	5,037	4,899	9,936	1,104
30		Lalitpur	212,628	109	6	3,730	3,909	7,639	1,273
		Total of Circle ...	6,400,863	...	121	58,665	57,694	116,359	961
31	Benares.	Gorakhpur	2,019,350	441	19	11,582	11,843	23,425	1,233
32		Basti	1,472,994	528	12	4,590	5,974	10,564	880
33		Azamgarh	1,531,410	597	15	6,955	6,460	13,416	894
34		Gházipur	1,345,401	621	19	9,726	9 634	19,360	1,019
35		Benares	793,699	297	14	6,918	6,246	13,159	940
36		Mirzapur	1,015,293	195	13	5,709	5,304	11,013	847
		Total of Circle ...	8,178,147	...	92	45,478	45,461	90,936	988
		Total of Province ...	31,775,017	378	517	293,208	296,483	589,686	1,141

DEPARTMENT.

the North-Western Provinces during the year 1876-77.

Primary vaccination.				Re-vaccination.		Percentage of successful cases.		Persons successfully vaccinated per 1,000 of population.	Average annual number of persons successfully vaccinated during previous five years.		Average annual number of deaths from small-pox during previous five years.	
	Successful.											
Total.	Under 1 year.	Over 1 and under 6 years.	Total of all ages.	Total.	Successful.	Primary.	Re-vaccination.		No.	Ratio per 1,000	No.	Ratio per 1,000
9	10	11	12	13	14	15	16	17	18	19	20	21
25,806			23,894	21,275	2,330	96·35	12·55	55·19	...	...	...	...
26,656			25,364	4,726	422	97·51	9·32	81·72	...	...	...	...
7,608			6,697	2,721	315	94·52	13·09	36 07	...	...	...	...
60,070			55,955	28,722	3,067	96·64	12·02	60·24	...	...	...	...
23,568			20,967	768	178	93·88	29·56	28·44	...	...	...	...
24,404			21,179	1,107	393	91·64	40·02	18·87	...	...	...	...
30,152			26,507	1,024	446	93·10	55·26	17·59	...	...	...	...
17,752			15,935	219	103	93·12	53 64	16·88	...	...	...	...
21,470			19,637	639	264	94·31	50·19	21·01	...	...	...	...
117,346			104,225	3,757	1,384	93·17	44·51	19 83	...	...	...	...
4,050			3,584	...	...	90·6	...	4·02	...	...	...	...
4,167			3,655	...	...	91·5	...	36 01	...	...	...	...
27,651			24,659	...	...	93·3	...	31·28	...	...	...	...
15,460			13,052	...	...	90·2	...	22 40	...	...	...	...
37,237			34,975	...	...	97·2	...	29·23	...	...	...	...
16,039			13,776	...	...	91·4	...	14·71	...	...	...	...
25,872			22,467	...	...	90·6	...	20 94	...	...	...	...
8,259			7,461	...	...	95·2	...	10·60	...	...	...	...
17,618			15,894	...	...	93·7	...	17·91	...	...	...	...
10,166			9,506	...	...	95·7	...	10·45	...	...	...	...
9,780			8,650	...	...	90·7	...	11·30	...	...	...	...
17,814			15,999	...	...	94·2	...	14·62	...	...	...	...
10,862			9,684	...	...	92·4	...	14·48	...	...	...	...
204,975			183,372	...	...	93·3	...	16·64	...	...	...	...
28,840			23,019	151	114	87·1	86·3	19 92	...	...	...	...
14,296			8,518	136	51	74·0	51·0	12·83	...	...	...	...
9,419			7,683	497	169	88·4	49·1	7·49	...	...	...	...
11,394			8,131	313	221	81·7	77·2	15·36	...	...	...	...
10,101			7,141	173	111	81·8	76·0	10 23	...	...	...	...
9,556			6,733	647	288	81·5	60·1	4·83	...	...	...	...
15,178			12,261	4	1	88·1	25·0	30·32	...	...	...	...
9,936			6,935	24	6	84·4	54·5	21·83	...	...	...	...
7,639			5,533	11	8	82·2	72·7	26·02	...	...	...	...
116,359			85,954	1,956	969	83·9	64·0	13·43	...	...	...	...
23,425			19,470	160	114	89 95	81·42	9·64	...	...	...	...
10,564			9,455	...	...	95·01	...	6·42	...	...	...	...
13,415			12,121	47	13	93·11	33·33	7·92	...	...	...	...
19,360			17,343	197	109	94·03	68·12	12·82	...	...	...	...
13,159			12,078	109	53	93·52	50·49	2 63	...	...	...	...
11,013			9,735	135	58	93·48	48 73	9·59	...	...	...	...
90,936			80,202	648	347	92·84	61·6	9·81	...	...	...	...
589,686	Information not available.	Information not available.	509,708	35,083	5,767	92·03	18·79	16·04	340,373	10·71	56,936	1·79

A. VACCINE

Statement No. II. showing the cost of the Department in the North-Western

Number.	Circle of superintendence.	Districts.	Establishment.						Expendi	
			Superintendent-General.	Superintendents of circles	Deputy Superintendents.	Native Superintendents.	Vaccinators.	Chaprasis and other servants	Pay of establishment.	Travelling allowance.
									Rs a p.	Rs a. p.
1	Kumaun and Garhwál.	Kumaun	...	...	...	...	...	...	...	...
2		Garhwál ...	...	...	...	...	...	...	...	...
3		Tarái	...	...	...	...	...	...	...	...
		Total, Kumaun Circle ...	1	...	1	3	27	10	20,494 0 0	1,288 12 10
4	Rohilkhand.	Bijnor	...	...	...	...	...	...	...	...
5		Moradabad	...	...	...	...	...	...	...	...
6		Bareilly	...	...	...	...	...	...	...	...
7		Sháhjahánpur	...	...	...	...	...	...	...	...
8		Budaun	...	...	...	...	...	...	...	...
		Total, Rohilkhand Circle ...	...	...	1	5	23	7	12,196 0 0	225 0 0
9	Agra and Meerut.	Independent Garhwál	...	...	..	...	...	...	...	...
10		Dehra Dún	...	...	...	...	...	...	...	...
11		Saháranpur	..	...	..	...	...	...	...	...
12		Muzaffarnagar ...	..	...	...	...	...	...	...	...
13		Meerut	...	...	...	...	...	...	...	...
14		Baland shahr	...	...	...	...	...	...	...	...
15		Alígarh	...	..	...		...	...	...	...
16		Etah	...	...	...	...	...	...	...	...
17		Muttra	...	...	...	...	...	...	...	...
18		Farukhabad	...	...	...	...	...	...	...	...
19		Maiupuri	...	...	...	..	...	...	...	...
20		Agra	...	...	...	...	...	...	...	...
21		Etáwah	...	...	...	...	...	...	...	...
		Total, Meerut and Agra Circles ...	..	1	1	13	184	17	34,396 3 0	1,274 14 0
22	Allahabad and Jhánsi.	Cawnpore								
23		Futehpur	...	...	...	...	...	...	...	...
24		Jaunpur	...	...	...	...	...	...	...	...
25		Hamirpur	...	...	...	...	...	...	...	...
26		Bánda	...	...	...	...	...	...	...	...
27		Allahabad	...	..	...	...	...	...	...	...
28		Jalaun	...	...	...	...	...	...	...	...
29		Jhánsi	...	...	...	...	...	...	...	...
30		Lalitpur	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...
		Total, Allahabad and Jhánsi Circles ...	...	1	1	9	121	14	28,427 3 0	1,106 10 0
31	Benares.	Gorakhpur	...	..	...	...	...	...	...	...
32		Basti	...	...	...	...	...	...	...	...
33		Azamgarh	...	...	...	...	...	...	...	...
34		Gházipur	...	...	...	...	...	...	...	...
35		Benares	..	...	...	...	...	...	...	...
36		Mirzapur	...	...	...	...	...	...	...	...
		Total, Benares Circle ...	...	1	1	6	92	12	21,538 9 0	1,336 14 0
		Total of Province...	1	3	5	36	517	60	1,17,051 15 0	5,212 2 10

DEPARTMENT.

Provinces, during the year 1876-77.

TURE.		PAID FROM							
Contingencies.	Total cost.	Imperial funds.	Provincial funds.	Local funds.	Municipalities.	Native States.	Total.	Number of all successful vaccinations and re-vaccinations.	Average cost of each successful case.
Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a p.		Rs. a, p.
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,331 9 6	23,094 6 4	...	21,914 6 4	908 0 0	272 0 0	...	23,094 6 4	59,022	0 6 3
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
48 0 0	12,469 0 0	...	9,665 0 0	740 0 0	2,064 0 0	...	12,469 0 0	105,609	0 1 11
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,068 0 0	36,739 1 0	...	28,947 1 0	3,424 0 0	3,708 0 0	660 0 0	36,739 1 0	183,372	0 3 2
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
968 0 0	30,501 13 0	...	28,017 13 0	828 0 0	1,380 0 0	276 0 0	30,501 13 0	86,923	0 5 7
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
558 0 0	23,433 7 0	...	20,969 7 0	572 0 0	1,044 0 0	828 0 0	23,433 7 0	80,549	0 4 8
3,973 9 6	1,26,237 11 4	...	1,09,583 11 4	6,472 0 0	8,468 00	1,764 0 0	1,26,237 11 4	515,475	0 3 11

B.—DISPENSARY.

VACCINATION.

Statement No. III. showing Dispensary Vaccination in the North-Western Provinces, during the year 1876-77.

Districts.	Number of dispensaries in each district to which a vaccinator is attached.	Average number of vaccinators attached to dispensaries during the season.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator.	Primary Vaccination.				Re-vaccination.		Percentage of Successful Cases	
					Total.	*Successful.*			Total.	Successful.	Primary.	Re-vaccination.
						Under one year.	One and under six.	Total of all ages.				
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.	12.	13.
No separate Dispensary vaccination recorded...												

Comparative Statement No. IV. showing the number of persons primarily vaccinated and the number of those persons who were successfully vaccinated in the North-Western Provinces in each of the under-mentioned official years.

Establishment.	Persons primarily vaccinated.																	
	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number,	Number successfully vaccinated	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
	Years ended 31st March.																	
	1867*		1868*		1869*		1870.		1871.		1872.		1873.		1874.		1875.		1876.	
Government ...	253,048	198,317	331,590	266,587	299,357	237,298	243,267	191,825	242,975	199,809	276,155	225,587	294,569	238,920	311,588	253,743	358,973	300,725	409,779	352,599
Municipal ...	...	...	...	...	...	...	45,343	37,978	60,657	49,376	65,914	53,715	77,941	62,645	81,136	65,952	74,432	63,148	88,360	77,410
Local Funds ...	...	...	...	...	...	...	6,281	4,631	6,638	4,886	34,058	27,767	44,326	34,179	37,844	27,758	38,467	33,153	75,917	65,344
Native states ...	...	...	...	...	...	...	11,260	8,180	8,898	7,843	18,704	16,175	13,729	11,399	15,333	12,394	14,505	12,691	14,083	12,395
Dispensaries ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Army.																				
European ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Native ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	253,048	198,317	331,590	266,587	299,357	237,298	306,151	242,614	319,168	261,914	394,831	323,244	430,565	347,143	445,901	359,847	486,377	409,717	588,139	507,748

*Cannot be given separately for these years.

PRINTED AT THE N.-W. PROVINCES AND OUDH GOVERNMENT PRESS.

ORDERS OF GOVERNMENT.

No. 154A OF 1877.

FROM

C. ROBERTSON, ESQ.,

Secretary to Government, N.-W. P. and Oudh,

To

C. PLANCK, ESQ,

Sanitary Commissioner, N.-W. P. and Oudh.

DATED ALLAHABAD, THE 6TH DECEMBER, 1877.

SIR,

I AM directed to acknowledge the receipt of your sanitary report for the North-Western Provinces for the year 1876, and to convey to you the following remarks and orders.

2. The report, which is for the calendar year ending the 31st December, 1876, was only received in this office on the 8th October, 1877—an unusually late date. But the Lieutenant-Governor is aware that you are not altogether accountable for the delay. You were continuously engaged from January of the present year to the middle of June in suppressing an outbreak of Mahamári in Kumaun, and on your return to the ordinary duties of your office you were obliged to recast and add to your report in accordance with instructions lately received from the Government of India. His Honour trusts, however, that in future your report will be submitted to Government by the middle of June or beginning of July at latest.

Date of receipt.

3. In accordance with the orders above referred to (Resolution, Home Department, No. 88, dated the 9th May, 1877), the form of your present report differs considerably from those of previous years. The statistical tables, however, are in the old form, and in the absence of explanation it is assumed that the new forms did not reach your office till after you had already compiled your statements for 1876, when to recast them would have been a work of great difficulty. The new forms will of course be used for 1877. Your attention is also drawn to para. 4 of the resolution of 9th May last, which directs that the vaccination report for the official year shall be bound up with the sanitary report. You have given in the section on vaccination a summary of the report of the Superintendent-General of Vaccination for 1876-77 ; but as it seems to be the wish of the Government of India that the vaccination report be printed *in extenso* as section VII., this should be done. I am to add that the sections of your report should be numbered in the order laid down in the resolution above referred to. For example, the chapter on jails should be No. 4, and not, as it appears in your present report, No. 2 ; and the sections relating to military sanitation should be duly numbered, but entered as blank. Attention to these details will secure the uniformity aimed at by the Government of India and Secretary of State.

Form of report.

4. The statistics under this head show that 1876 was a year of scanty rainfall; and that the months of May, June, and July were remarkable for excessive temperature, as well as for prolonged light pressure and unusual dryness of the atmos-

Meteorology of the year.

phere. You endeavour to connect these climatic phenomena with the mortality and prevalent diseases of the year. But while this legitimately falls within the scope of the report, and is in itself interesting, it must be admitted that the registration of deaths is as yet too imperfect to admit of scientific analysis. It appears, on the basis of your figures, that out of 719,756 deaths—the total number registered during 1876—248,430 were recorded as occurring in the four months of March, April, May, and June: whereas in 1875 the number of deaths for the same period was only 206,293. But on the other hand in 1875 the mortality during September, October, and November was greater than in 1876, being 227,453 to 211,758; although there was no marked difference in this season between the two years. There is little doubt that the distribution of the rainfall is one of the most important meteorological facts so far as the influence of climate on health is concerned; and I am to ask you to give this subject special attention in succeeding reports.

Food-prices.

5. With regard to the general condition of the people, from the stand-point of the necessaries of life, the prices quoted by you at page 7 show that the year 1876 was one of average plenty and of easy prices. You attribute this to the timely rainfall of March; but while it is undeniable that the welfare of the crops is sometimes as much dependent on the timeliness as on the quantity of the rainfall, it is probable that the low prices of 1876 were to some extent due to the abundant harvests of 1875, both in the Panjáb and the North-Western Provinces, and to the absence of a demand for food grains from other parts of India. Whatever may have been the cause, the result remains that the poor and the labouring classes of the population were on the whole better off—for the necessaries of life—in 1876 than they had been for years previous; and if the recorded death-rate of 23 per mille is the highest yet recorded for these provinces, the cause must be sought either in the abnormal climate of the year, or, as is more probable, in the progressing accuracy of death-registration.

Jails.

6. The report of the Inspector-General of Prisons, from which you have drawn materials for this section, has been separately reviewed, and no further remarks are at present called for on this subject.

Vital statistics.

7. The chapter dealing with vital statistics is one of the most important sections of your report, and the details given are full and interesting. The provincial death-rate for 1876 was 23·3 per mille, the highest yet recorded in these provinces. The table given at page 12 shows how the annual death-rate has gradually risen from 11 in 1866 to the present figure. There can be little doubt that death-registration is as yet far from complete. According to the death-rate for 1876, the average duration of life in the North-Western Provinces is 42 years, whereas the ascertained value of life in Europe is only 35 years. With the means of registration at the command of the administration, it is impossible to expect perfect accuracy for many years in the provincial returns: all that can be looked for is a gradual but continuous improvement, such as the returns for the last decade show to have already taken place. The Lieutenant-Governor, however, trusts that the instructions lately issued to Mortuary Registrars (Circular

No. 34A, dated 2nd August, 1877) will not be without effect; and His Honour looks to you to keep the Government acquainted with all shortcomings that come to your notice. You should take occasion on every available opportunity to inspect personally the mortuary registers, and to test as far as possible their correctness and fullness.

You point out that the registration returns for Mainpuri, Agra, Allahabad, Basti, and Azamgarh, give an average duration of life as high as 54 years, and those for Meerut and Jaunpur a corresponding average of 65 years. Figures such as these plainly point to a neglect of mortuary registration; and the results are not creditable to the district officers concerned. There is no reason why as accurate registration should not be secured in these districts as elsewhere throughout the provinces if due attention be given to the subject, the causes of the defects discovered, and the proper remedy applied. It is true, as you say, that the average area of police circles is large—too large perhaps for an absolutely efficient system of rural death-registration; but the Lieutenant-Governor is of opinion that the fault lies not so much in the system itself (than which, considering all the circumstances, a better could hardly be devised) as in the administration of it. The circles with more than 200 villages are few in number; and moreover I am to point out that the mere number of villages in a circle does not, or should not, materially influence the registration. It is the distance of a village from the thána (or reporting station), and the number of visits paid by the chaukidar (or reporting officer) per month to the station, that mainly affect the accuracy of the report.

Death-registration in municipalities.

8. The death-rate for the 81 municipalities of the North-Western Provinces for 1876 is 32·51, or more than ten per thousand above the average of England and Wales. It is probable that in many municipalities the registration closely approximates to accuracy, but instances of laxity are not wanting, as *e.g.*, in Allahabad, Ballia, and Benares, where the death-rates are respectively 9·83, 11·48, and 20·09 per mille. These figures are manifestly incorrect; and the neglect of careful registration is the more inexcusable in that in the limited areas of municipalities death is an occurrence that cannot fail to be known to the reporting agency, and if it is not recorded, it can only be owing to the culpable negligence of those whose duty it is to bring it to notice. Sir George Couper notices with regret that the worst results are shown by the large and flourishing municipality at the seat of Government; and trusts that steps will at once be taken to ascertain the true cause why in Allahabad death-registration is so defective. The same remarks apply in a lesser degree to Ballia, and in some degree to Benares and Jaunpur. With these exceptions, municipal registration seems tolerably accurate. It reveals a death-rate of at least 35 per thousand, which is certainly high. I am to say, however, that it is by no means certain that where population in towns is increasing this is entirely due to the excess of births over deaths, and not (partially at least) to the influx of new residents from rural districts. This can be determined only when birth-registration is more full and accurate.

Birth-registration.

9. The efforts of the Government have hitherto been confined to securing reliable birth statistics in towns where ample facilities exist; but in view of the necessity of

more detailed information, Commissioners of divisions have lately been addressed in regard to a proposed extension of the system to rural circles. This subject will be separately discussed. Meanwhile the figures of some municipalities show that patient and continued attention, with timely supervision, is alone required to secure accuracy; and the Lieutenant-Governor trusts that the municipal committees of towns where registration of births is still defective, will use their best endeavours to perfect their arrangements.

Diseases.

10. The total number of deaths registered during the last two years is thus accounted for:—

	1875.	1876.
Cholera	41,106	26,304
Small-pox	25,819	35,174
Fever	456,485	495,469
Bowel-complaints ...	80,337	88,850
Injuries	15,065	13,487
Other causes	52,679	60,472
Total ...	671,491	719,756

Although the mortality was greater than in 1875, yet the year seems to have been comparatively free from epidemic diseases. Cholera was confined to the eastern districts, to certain parts of Rohilkhand, and to Kumaun. The tabular statement given at page 21 of your report is interesting. It shows that if one death per mille from cholera in any district during the year be assumed to indicate the prevalence of cholera, the disease appears seven years out of every twelve in the eastern districts, against one in every twelve in the extreme north-west of the province. Fever seems to have been as usual very prevalent; but it is satisfactory to find that in those districts of the Upper Doab, in which the extension of canal-irrigation was attended by an alarming increase of fever, the mortality is now gradually falling to the normal standard—a result to be ascribed partly to the acclimatization of the inhabitants, and partly (but in a greater degree) to the extensive drainage works, which of late years have been undertaken by Government at a large outlay in the districts most affected. With regard to Cawnpore, which comes next to the Tarái in its fever death-rate, I am to say that it is consistent with the general law which connects an excessive prevalence of fever with the introduction or extension of canal-irrigation, that that district in which irrigation has been lately introduced has now become the headquarters of this disease, with the high death-rate of 21·26 per thousand. But it is satisfactory to note that the mortality is nothing like as great as was formerly the case in the districts of the Upper Doab. It is to be hoped, with efficient drainage accompanying canal-irrigation, that the high death-rates which once ruled in the northern districts will never be reached in any canal district in the Lower Doab.

Vaccination.

11. The report of the Superintendent-General of Vaccination has already been separately reviewed, and no further remarks are called for in this place.

Civil sanitary works.

12. Nothing in this section calls for special comment. The results you describe indicate healthy activity on the part of municipal authorities, and growing attention to the

conditions affecting public health. If the total results are somewhat meagre progress is clearly observable ; and it is satisfactory to note that almost every district in the provinces had something to show under this head at the close of 1876.

Personal proceedings.

13. You divide this section of your report into three periods—the Moradabad cantonment enquiry, the Delhi assemblage, and the outbreak of Mahamári in Kumaun. The records of the first period were unfortunately lost ; but as the Government of India have lately issued instructions for the inspection of cantonment environs on a new system, the matter is one of no great importance. The description of your sanitary work at Delhi is unnecessarily detailed ; there was no occasion to enter into all the minutiæ of your proceedings there, and to burden the report with a mass of details which for all practical purposes are useless. Equally unnecessary was it to print *in extenso* narratives of the visits paid by you to the villages that suffered from Mahamári in Kumaun. In the published report only those facts should have been mentioned which bear on the question of the nature and origin of the disease, its prevention, and treatment. The personal histories of the sufferers, however interesting, are out of place. And the misbehaviour of a servant of Government, described at pages 49—50, should, if necessary, have formed the subject of a separate reference to the local authorities. As to the cause of the outbreak and the origin of the disease there is a difference of opinion. Your view on the whole appears to be supported by facts, but that suggested by Dr. Watson deserves further investigation ; and the Lieutenant-Governor trusts he will find opportunities for further enquiry, and will report the results. One thing, however, is clear. Even if the disease originates in an unwholesome condition of the food, its rapid spread and deadly character must be largely due to the filthy habits of the people, and the vitiation of the atmosphere in which they live. The results of past years show that where proper attention is paid to sanitary measures such outbreaks do not occur. Under the orders lately issued on the subject (G. O. No. 598, dated 25th August last), the district officers have been instructed to visit all parts of their districts yearly during the camping season on routes approved by the Commissioner, to inspect all accessible villages, and to see that the sanitary rules prescribed are strictly obeyed. The Lieutenant-Governor trusts these orders will secure that local officers will exercise vigorously the large powers the law has given them to put a stop to such practices as are likely to generate disease. In conclusion, I am to remark that Sir George Couper has already placed on official record his acknowledgment of the commendable zeal and praiseworthy disregard of personal comfort with which both you and Dr. Watson discharged your onerous duty in Kumaun under very trying circumstances.

I have the honour to be,

SIR,

Your most obedient servant,

C. ROBERTSON,

Secy. to Govt., N.-W. P. and Oudh.

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on 01 February, 2020